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OBSERVATIONS ON THE NORMAL DIET.

BY

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WHAT is the normal diet? How much solid food is required daily by a healthy adult, and what should be the relative proportions of the organic constituents? The tables compiled by physiologists on these important points contain striking discrepancies which can be easily accounted for; some of the statistics being taken from barracks, workhouses, and other institutions where great economy has to be practised, and consequently where farinaceous and fatty articles of food are chiefly used; whilst others are compiled from experiments on students or on the physiologist himself. Climate, season, temperament, age, and the nature of the work done are also modifying influences, so that perfect coincidence is not to be expected. But in order to satisfy myself, I induced some students at the School and others to help me to ascertain how much food was consumed by the average

Englishman in the twenty-four hours; and, if possible, the amount necessary for health.

Before detailing the results I arrived at, I wish to say that I do not consider moderate over-eating necessarily injurious. There are very few, I believe, who do not habitually take more food than is really essential; but, although I have been irresistibly led to this conclusion, I do not intend to apply the moral either to my neighbour or myself.

During the day an ordinary labourer has to do work which corresponds, roughly, to four hundred and fifty foot-tons, irrespective of that which is done by the heart and other involuntary muscles. With brain-workers this quantity is difficult to fix; but the daily destructive metabolism, which is the great criterion of work done, does not vary much amongst different occupations. This waste must be replenished by food, and it is important for us to know, apart from mere instinct or appetite, the amount required to make the income and expenditure equal. "Instinct" prompts a man to eat until he is satisfied; but satisfaction often comes too soon or too late, generally the latter, and by long practice the maximum of distension steadily increases.

We cannot, however, compete with our ancestors; for there is abundant evidence that the scholars, wits, and statesmen of the eighteenth century both ate and drank to an extent that very few can now imitate with impunity.

The following is Swift's idea of a dinner for seven people, one of whom had "no appetite":—

"*First course:* Sirloin of beef, fish, shoulder of veal and tongue.

"*Second course:* Almond pudding, fritters, chickens, black-puddings and soup.

"*Third course:* Hot venison-pasty, hare, rabbit, pigeons, partridges, goose, and a ham." A goose being in those days considered "too much for one man, but not enough for two."

The influence of diet on the secretions is well known; but I may mention, as an instance of this, that the proportion of nitrogen to carbon excreted on what I consider a healthy mixture of food-stuffs is about *one* to *fifteen;* whereas in a diet rich in meat, such as many people indulge in, it becomes *one* to *seven*, the carnivora having the quotient at *four and a half.*

As examples of discrepancy in food statistics, it may be interesting to notice that whilst Ranke considers 15 to 16 ounces of chemically dry food a sufficient quantity for an average man on average work, and Dr. Dalton gives 19½ ounces, Huxley gives 22½ ounces, Pye-Smith 20 to 32, and Dr. Parkes 23 ounces.

Again, whilst Ranke gives the proportion of nitrogenous to non-nitrogenous food as *one* to *three and a half*, Moleschott fixes it at *one* to *seventeen and a third.*

My method of experimenting was, briefly, this: The food at each meal was weighed as carefully as circumstances would permit, and the water was subtracted. Taking one food with another, the amount of water is rather over 50 per cent., but with vegetarians it is more than this.

This, however, is not always the case, some vegetarians eating quantities of legumes and of rice, both of which contain much less water than lean meat. Ordinary bread when a day old only contains about 40 per cent. of water, and I found that bread and cheese, mixed in the normal proportions for eating, lost only 37·5 per cent. by drying.

Refined experimenting was not possible, for this would mean modifying the diet, the very thing I wished to avoid. I generally added on a little to the results obtained, to make up for conscious or unconscious deductions from the daily routine which I fancy were sometimes made.

The conclusions I came to may be summed up thus:

1. Very many men eat considerably more than the

most liberal tables, such as those of Parkes. It is not uncommon for an average-sized man, on very moderate work, to eat 25 or 27 ounces of chemically dry food a day.*

2. Amongst the working class of medical students the daily quantity was found to be about 19 ounces: the lowest, on *mixed* diet, was 15.6 oz.; but in this case the height and weight were below the average.

3. Women eat much less than men, after making allowances for differences in weight and work. Where a man eats 19 ounces, a woman of the same weight and of active habits eats only 14 or 15 ounces.

4. On a diet from which all meat is excluded, I have found from reliable experiments that 12 to 13 ounces per diem can comfortably feed a hard-working man.

Thus the average diet in one case (the experiments lasting one week) consisted of 12⅓ *ounces* per diem. A lady aged 76, a strict vegetarian, who enjoys unusual vigour of mind and body, has for some years lived on a daily diet of under 10 ounces. It should be remembered that peas, beans, rice, and eggs, which are almost always taken by "vegetarians," are highly concentrated foods.

5. The arrangement of meals appears to make a considerable difference in the amount eaten, late diners usually consuming more than those whose chief meal is in the middle of the day. For example, a medical man whose average was 19½ ounces per diem when dining at two o'clock, ate, as he calculated, 21 to 23 ounces daily when dining at seven. Most men who dine early have the same appetite for dinner at half-past seven or eight as if they had merely a light lunch previously.

6. A moderate amount of stimulants (especially in the form of wine) apparently increases the average: moder-

* When I give quantities I shall always mean chemically dry food.

ately free drinking diminishes it. I cannot, however, state this with anything like certainty.

7. The relative amount of nitrogenous and non-nitrogenous food can be varied within wide limits with *apparent* impunity, one man eating in the proportion of one to two, another in the ratio of one to fifteen or sixteen. This modifies the excretion of urea very considerably, however, and the organs concerned in the formation of the nitrogenous metabolites do much more work in the former class. Experience shows that these organs frequently suffer, probably from the over-strain put upon them, and it is important to realise this.

A diet consisting of one part nitrogenous to seven or eight non-nitrogenous is a good combination. This is greatly exceeded on the nitrogenous side by the majority of men and women, especially by the former.

8. A diet of 12 to 14 ounces of chemically dry food, digestible, and with the ingredients in proper proportion, is sufficient, I am convinced, to keep an averaged-sized man, on moderate work, in good health. As far as I can ascertain, however, the majority of people in England eat literally *twice* as much, and this, too, in a nation that has had bequeathed to it by intemperate ancestors a heritage of gout and allied diseases.

ON THE TREATMENT OF LARYNGEAL GROWTHS.

BY

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HAVING, during the past six years, had many opportunities of seeing cases in which symptoms of laryngeal trouble were present, and in which, on laryngoscopic examination, outgrowths in that part of the respiratory tract were found, I think that, without pretending to say anything new, I may still say a few words that are not altogether devoid of value.

Deferring for the moment the consideration of malignant growths of the larynx, we have to discuss all other forms of outgrowth from the mucous membrane found in that organ.

In order still further to simplify matters, I will separate all those excrescences which are met with in syphilis, phthisis and lupus from those which have no such origin, and call the latter benign or innocent growths.

As regards the ætiology of benign laryngeal tumour formations, there is no doubt whatever but that people, who either from the nature of their business, or voluntarily submit their vocal organs to considerable strain, are infinitely more liable to be attacked by them than others who use their voices in moderation, and rarely, or

never, for other purposes than conversation. In fact, just as no hypertrophy of the muscles of a limb takes place under steady, quiet, long-continued work—*e.g.* writing, every day during many years, causes no increase in the bulk of the muscles of the arm, there being no hyperæmia of the limb set up by, and necessary for, the doing the work which is required, and yet the limb quickly gets larger under the intermittent strain of hard muscular work—so no amount of conversation causes laryngeal hyperæmia, and yet a moderate amount of singing will quickly do so in the same person, in many cases.

Therefore, the same class of patients who consult us for catarrh of the larynx, will present to us cases of the disease under consideration, *e.g.* actors, singers, school teachers—especially those who teach some rudimentary singing—and drilling masters, in my own practice.

We shall find, too, that using the voice in an atmosphere as of a smoking concert, charged with irritating fumes, or with dust and burnt gas as in a theatre, &c., predispose to these outgrowths.

As regards the ages of my cases, I have seen none under twenty, and have seen one case over sixty years old. The males were largely in excess of females.

The most noticeable symptom, and the one which induces patients to consult a medical man, is usually alteration in the voice, which becomes hoarse, and may be in some cases nearly extinguished; and patients who continue to use their voices as long as they are only *slightly* hoarse, during which time there has doubtless been congestion of the larynx, are obliged to seek advice, because the hoarseness has increased, and then, on laryngoscopic examination, a growth or growths can be seen. Rarely do we notice pain, or interference with

deglutition or respiration; but patients often complain of a tickling hard cough, with the expectoration of small pellets of mucus, similar to that which is characteristic of irritation of the larynx or trachea.

The following case will demonstrate most clearly the dependence of these growths on chronic congestion:

T. W., aged 30, who had for fifteen years got his living by singing in public-houses, came under my care, at the Bristol General Hospital, suffering from chronic laryngitis. In the summer of 1887 he was dismissed, cured, after repeated painting of the vocal cords, which were red and thickened, with solutions of chloride of zinc in glycerine.

I lost sight of him for about ten months, when he returned, complaining of hoarseness, inability to sing long without becoming much fatigued, his throat aching, and his voice almost failing; these being the symptoms of which he had complained in the previous year, I expected to find a renewal of the chronic catarrh of the larynx, instead of which I discovered a small smooth red growth, attached by a pedicle to the left vocal cord near its anterior extremity, with some congestion of the vocal cord of the same side, and with a similar condition of the right cord, against which the polypus impinged on phonation.

Here, then, certainly not more than ten months were sufficient to give rise to a distinct growth, as the result of chronic congestion of the parts, due to straining the voice, in a man who sang whilst he was hoarse, and therefore unfit, and in an atmosphere charged with the irritating fumes of tobacco and alcohol.

I advised removal, which could have been done either with the snare, forceps, or Voltolini's sponge; but

the patient would not submit, and I have not seen him since.

This is an instance of a single pedunculated growth, in which operation would have at once restored normal voice: but we frequently see cases in which the growths are sessile and multiple; then the treatment must be different.

The two following cases, which are selected from amongst a number, will illustrate the pathological condition and its remedy:

A. C., aged 21, a Board School mistress, came under my care in January, 1887, with complete aphonia of some months standing. On laryngoscopic examination I found the anterior half of her left vocal cord covered by an irregular, sessile, pink-coloured growth, which projected into the glottic chink, and on attempted phonation touched the opposite cord and caused the aphonia, of which she complained.

I painted this growth with solutions of chloride of zinc in glycerine grs. x. to xxx. to the ounce, perchloride of iron solutions, and, lastly, lactic acid, beginning with 50 per cent. solution and leaving off with 80 per cent. solution. The result was that she regained her voice, was only very slightly hoarse, and ceased attending the hospital, as she got a situation as head mistress of a school, and daily submitted her voice to considerable strain. The growth was still to be seen, but had receded from the free edge of the vocal cord, having, in fact, shrunk under the action of the astringents used.

In June, 1888, she came to see me again because of slight hoarseness, and I found the left vocal cord just as it was on her last visit to the Hospital, nine months previously; the right vocal cord was thickened, and after

painting this with the same astringents as had previously been so efficacious, she quickly got well, and I have not seen her since.

M. C., a retired sergeant-major, consulted me for hoarseness, which was so pronounced as to prevent him giving the word of command in drilling boys and girls in schools: in fact, it was with some difficulty that I could understand some of his words, his deep bass voice sounded so oddly.

On examination, I found his right vocal cord covered in its whole length, with a fleshy-looking irregular growth, which projected well into the glottic opening, the other cord being congested.

Inhalations of compound tincture of benzoin, cold compresses at night, and systematic painting of the growth with solutions of chloride of zinc and perchloride of iron were productive of such a good result, that his voice became clearer than it had been for years, the outgrowth meanwhile having steadily diminished in size, and having changed in appearance, as it looked pale and shrunken.

In such cases as these, with a diffused growth or rather series of growths, which are sessile, removal by instruments is often quite impossible, but frequent application of astringents such as I have named, compresses, inhalation of vapor benzoin, and rest of the voice will prove of the greatest value.

Another class of case, of which the following is an example, shows the advantage of a somewhat different method of treatment:

M. W., aged 28, a schoolmaster, consulted me in September, 1888, for hoarseness, which was so considerable as to threaten to deprive him of his means of earning

a livelihood. On examining his larynx, I found a small purple-coloured growth, about the size of a large hemp-seed, and as irregular on its surface as a mulberry, attached by a broad base to the anterior third of the left vocal cord, near the angle of insertion of the cords into the thyroid cartilage. I thoroughly rubbed this growth with a hard substance and applied chloride of zinc solution, which removed the growth, and he regained his voice.

He came up to see me a few days ago, eight months after the operation, and I could just distinguish a small stump, of grey colour, in the position that the growth formerly occupied, and although in the interval he had submitted his voice to great strain, it had borne it exceedingly well, there being merely a faint trace of hoarseness after prolonged effort.

Here, then, the growth, which would have been exceedingly difficult to reach and grasp with either snare or forceps, was rubbed off, and the astringent solution applied to the raw surface. So far, there has been no sign of recurrence. The treatment of these pathological new formations, therefore, must be varied as the growth is pedunculated or sessile, and single or multiple; but just as, only by accurate laryngoscopic examination can we ascertain their presence, so it is only by painstaking and accurate local treatment, always with the aid of the laryngeal mirror, that we can hope to eradicate them and cure our patients.

As regards the outgrowths which we sometimes see in cases of phthisis laryngea, which are commonly found on the inter-arytenoid mucous membrane, and usually only in that situation, we generally see other signs of the grave constitutional mischief underlying them, in the shape of infiltration of the mucous membrane covering and in the

neighbourhood of the arytenoids, of the ventricular bands and side-walls of the larynx, of the epiglottis, or of the vocal cords, with or without ulceration. The lungs usually afford corroborative diagnostic evidence, primary phthisis laryngea being of the greatest rarity, if even it ever occurs. Removal of such growths is, in the great majority of cases, contra-indicated; as, in my opinion, the less a phthisical larynx is worried by local treatment, especially in the pre-ulcerative stage, the better. After ulceration has ensued, the question of the propriety of scraping the parts infiltrated with tubercle, and rubbing into the raw surface strong solutions of lactic acid, must be debated: I have certainly seen this treatment, and this *alone*, improve the appearance of the diseased parts, and even bring about cure, with cicatrisation of the tubercular ulcer, especially in the pharynx, in rare instances.

As to iodoform, iodol, carbolic-acid spray, menthol, *et hoc genus omne*, I do not see any cause to look on them as curative agents, and some of them are not even palliatives in laryngeal phthisis.

Syphilis sometimes, and especially in its tertiary stage, leads to considerable overgrowth of mucous membrane, which is in round projections or lumps, which cause great deformity of the larynx, and may so block the glottis as to render tracheotomy a vital necessity.

Such growths cannot, as a rule, be interfered with, with much hope of doing good, as the resulting cicatrisation will quite, or more than, compensate for the space opened up by operation.

After tracheotomy, however, attempts may be made, by cutting and dilatation, to open up the blocked passage, and allow the patient to breathe *per vias naturales*; but, it

must be admitted, often without success. As a rule, most of such cases are too far advanced for iodides to be of value, but I have seen, even in an apparently hopeless and long-standing case, some lessening of the growth take place when they are given in large doses; of course, in secondary conditions, much may be done by this drug and mercury.

There is also no doubt but that tracheotomy, by giving rest to the narrowed and over-worked, irritated glottic structures, is of great value in these cases. I have a patient at present under my care, in whom there has been a distinct widening of the chink since the operation was performed. Although the tube has to be worn permanently by many of these patients, yet the benefit to the general health obtained by ensuring the free entry of air into the lungs, quiet refreshing sleep, and freedom from the anxiety caused by the constant dread of suffocation, under which they labour, makes the operation justifiable, long before a considerable encroachment on the glottic chink is present.

With reference to malignant laryngeal growths, I am thankful to say that I have not had to assume entire responsibility of treating many cases, and I only know the results of radical measures from reading the accounts of published cases.

From what I have seen, I do not consider that tracheotomy is done early enough in these patients, because, whilst cure cannot be dreamt of from the operation, the rest to the diseased structures and the retention of good general health, obtained by opening up a channel for an abundant air-supply, will, there is reason to believe, defer the stage of ulceration, of secondary infiltration, and of a fatal termination.

The feeding of these patients, especially during the

intercurrent attacks of perichondritis which come on, is of the greatest importance. Liquids, as a rule, are not easily swallowed, as the epiglottis being thickened and erect, they tend to "go the wrong way." I always order them to be thickened by arrowroot, beaten-up egg, &c.; and I find that curds and whey, custard, blanc mange, beef and chicken jelly, raw eggs bolted almost whole, bread and milk made like baby's pap, egg and milk with or without alcohol, and all of these in bad cases, taken after a 5 to 10 per cent. solution of cocaine has been carefully painted on the diseased structures, are well borne.

The food should not be sipped, but bolted in good quantity, as there is not so much pain in swallowing, at one gulp, two or three ounces of thickened milk as a tablespoonful. Naturally, rectal alimentation also has to be thought of; and the value of cocaine, accurately applied with a brush, under the guidance of the mirror, and not vaguely sprayed into the throat, is extremely great in quelling pain and promoting comfort, sleep, &c.

Clinical Records.

ON "BIRTH PALSY,"* WITH ILLUSTRATIVE CASES. By F. W. Jollye, M.R.C.S., L.R.C.P., Warminster.

The patients I shall bring before you to-day illustrate a class of cases which was first mentioned by Heine in 1840, and has since been described by Little,† Gowers,‡ M'Nutt,§ Gee,‖ and Ross,¶ amongst others. Gowers calls these cases "Birth Palsies," which, as he points out, is much more correct than "Congenital" or "Obstetrical Palsies." The objections to the word "congenital" are these: (1) The word conceals a certain amount of ignorance as to their pathology; and (2) They are not begotten with the embryo, and therefore are not germ or congenital diseases such as syphilis and some forms of nervous affections, as, for example, pseudo-hypertrophic paralysis, and hereditary locomotor ataxy or Friedreich's disease. Another class of deformity is what is known as congenital talipes, which is due to malposition of the limbs in utero, and not, strictly speaking, to any congenital cause.

* Paper read and cases shown at the Salisbury Branch Meeting of the British Medical Association, April 3rd, 1889. † *Obstetrical Trans.*, 1862.

‡ *Diseases of the Nervous System*, vol. II.

§ *American Journal of the Medical Sciences*, 1885.

‖ *St. Bartholomew's Hospital Reports*, 1877, 1880. ¶ *Brain*, vol. VI.

These cases of Birth Palsy do not belong to either of these classes, but form quite a distinct class, whose symptoms are due to injury received during the process of birth. They are not all strictly obstetrical; for the accoucheur does not inflict the injury in the most important and serious classes of these cases, although he might perhaps prevent their origin in some of them by timely interference in abnormal presentations, or by the application of the forceps in prolonged and difficult labours with head presenting.

Birth Palsies are divisible into two classes:

I. Peripheral or True Obstetrical Palsies.—Of this class, the common forms are:

(a) Facial palsy, from pressure of the blade of the forceps on the trunk of the seventh nerve after it has left the stylo-mastoid foramen and is crossing on to the lower jaw.

(b) The "upper-arm type" of paralysis, or Erb's paralysis, due to injury of the cord formed by the fourth, fifth, and sixth cervical nerves above the clavicle in breech presentations by pressure on this cord by the tip of the finger, or by the point of the traction-hook just in front of the trapezius, causing paralysis of the deltoid, biceps, brachialis anticus and supinators, and often with these the infra- and supra-spinatus muscles. The muscles, although supplied directly by the following nerves: circumflex, musculo-cutaneous, musculo-spiral and supra-scapular, yet all indirectly are supplied, fully or partly, by the fourth, fifth, and sixth cervical nerves. The reason of this is, that all synergic or associated movements are related to special groups of nerve-cells situated near together in the grey matter of the spinal cord; and, therefore, injury to these cells, or to the motor roots springing from them, causes paresis or

paralysis of associated muscles. As another example of associated movements in this neighbourhood, I may mention that the centres for the two parts of the pectoralis major are separate, and are associated—the clavicular with that of the serratus magnus, the costal with that of the latissimus dorsi.

(c) Irregular paralysis of the arm, from pressure of a fractured humerus or a dislocation at the shoulder-joint, or what is often mistaken for the latter—a separation of the upper epiphysis. The musculo-spiral is the nerve most often affected, then the ulnar, and very rarely the median.

As a rule all these peripheral forms recover perfectly in a few days or weeks. The muscles may show the reaction of degeneration during recovery, if this takes some time.

II. CEREBRAL CLASS.—The lesion in this division is a much more serious one: it may cause death soon after birth; or it may, by causing paralysis and spasm of the limbs, give rise to deformities which may last for years, or even for lifetime; or, lastly, it may cause deterioration of the mind, from simple weakness of intellect up to actual idiocy. Any of these symptoms may be associated with epilepsy.

The history of these cases is, shortly, as follows: There will be no history of any definite onset; but the mother will say that nothing was noticed the matter with the child until it was found that it did not walk at the usual time, and on closer examination that the legs were found to be more or less stiff. In the more severe cases immobility of the limbs is noted during the early weeks of life, either on one or both sides, or both legs; or occasionally only one limb, and that more often the arm. If the birth

is enquired into, it is often found that the labour was difficult, or it was an abnormal presentation such as a breech, and that it may have been the first child. In many cases, as a proof of the difficulty of birth, you may be told that the child appeared dead for some minutes, and was only restored by artificial respiration; or it may have had a large hæmatoma of the scalp; or it may have been convulsed generally, or only on one side, followed by spasm, universal or local, during the first few hours or days of life. The convulsions are often erroneously ascribed by the parents as the cause of the rigidity and paralysis.

Out of 36 cases seen by Dr. Gowers, $\frac{1}{5}$ were breech presentations. Of the remainder, 17 out of the 24 in which this point was noted were first-born; and in the remaining multiparous ones, most of the previous labours had been difficult. All four limbs were affected in $\frac{2}{3}$ of the cases ($\frac{22}{36}$), trunk and neck-muscles in $\frac{1}{3}$ ($\frac{11}{36}$), limbs of one side only affected in $\frac{7}{34}$, and in rather fewer ($\frac{6}{34}$) the legs alone suffered in considerable degree.

Symptoms.—The noticeable feature of these cases is the paralysis, more or less, of some of the muscles, combined with spasm. If the child is able to walk, it will be noticed that the legs are moved very stiffly; that they are kept wide apart, so that he can more easily balance himself; and that he walks very often on his toes, the heel being drawn up. Their gait is very unsteady, and they easily fall. If the legs are examined, the feet will be found in a state of talipes equinus, or equino-varus, due to spasm of the calf-muscles; but this can almost always be overcome by pressure on the sole. The hamstrings, too, are often in a state of spasm, causing flexion of the knees; or the knees may be flexed at one time, and at another rigidly

extended. Spasm of the adductors—a common symptom—is well seen in the girl N. This adductor spasm may be sufficient to cause one leg to cross over the other in walking, causing "cross-legged progression," and this latter symptom is more marked in cerebral than spinal cases. There may be choreic movements of the two feet. The knee-jerks are excessive, and rectus-clonus may be easily obtained; but, as a rule, there is no ankle-clonus—there is none in the cases exhibted—which is peculiar: but Gowers accounts for it in this way—but his is only theory—"that the muscle-reflex mechanism related to the calf-muscles has not received the functional development that must result from the ever-recurring sequence of tension and contraction involved in walking. The active contracture in the calf-muscles, which most cases present, is a serious hindrance to walking, even when the muscular power is sufficient." It must be remembered that it has now been almost conclusively proved that the "deep reflexes are not true reflexes at all, but that they are locally excited in the muscle through the medium of the tendon, the muscle having had its irritability increased to local stimulation reflexly by tension previously brought about in it by extension of the muscle."

In the arms, besides the weakness, there is usually inco-ordination from spasm, and often spontaneous movements: the latter may be slow like athetosis, or quick like chorea; and some of these cases have been described as cases of "congenital chorea." If the spasm is marked, it throws out of gear all the voluntary and co-ordinated movements. If the child is asked to pick up a pin, it will often be noticed that his wrists, and fingers at the metacarpo-phalangeal joints, are hyper-extended; and then the fingers are expanded, and after a time close

upon it in a spasmodic manner. This is well seen in the boy. The elbow may be spasmodically flexed and extended, and sometimes strongly adducted.

In infancy there may be conspicuous difficulty in supporting the head; in some there may be retraction of the head and some lateral curvature of the spine from weakness of the spinal muscles. The face, when quiet, sometimes appears normal; but on articulation there may be marked spasm, as seen in the boy W. F. Strabismus, if present, is due to spasm, not to paralysis. Mental defects are met with in half the cases, according to Gowers: in some cases amounting to idiocy; but generally it is only enough to render the acquisition of speech later than usual, and it is often difficult to know whether the inability to speak is due to motor aphasia from implication of Broca's convolution, or to weakness of intellect. In many cases in which the legs only appear affected some deficiency in the arms may often be detected; but I can find none in the girl N.

Fits are a common symptom: they may cease after a few months, or develop into confirmed epilepsy, but not so frequently as after acquired hemiplegia of children. They generally involve the limb most affected by the paralysis. The occurrence of fits bears no relation to the severity of the limb-symptoms. The initial convulsions of birth seldom persist; but subsequently fits begin, usually towards the end of the first year of life.

The limbs may be small from disuse; but there is no marked muscular wasting, and on electrical examination there is no reaction-of-degeneration.

Pathology.—The head of a child in a difficult labour suffers from a considerable amount of mechanical congestion, which may lead to rupture of veins and extravasation

of blood amongst the meninges of the brain. We can easily understand this liability to rupture of these veins when we remember that, contrary to the rule elsewhere, ascending arteries open into ascending veins, and these veins open into the longitudinal sinus in such a manner that the entering blood is opposed in direction to the current in the sinus, and in the latter are trabeculæ running across the lumen. All these combined must offer great hindrance to the flow of blood.

This extravasation of blood takes place, as far as we know at present, in two places; viz., on the vertex over the motor region and its immediate neighbourhood, and at the base round the medulla and cerebellum from rupture of the cerebellar arteries. The symptoms of the latter form—*i.e.* at the base—are doubtful; but in those cases in which there is retraction and weakness of the neck, as well as spasm of the limbs, there is most probably extravasation round the medulla as well as over the motor area.

Dr. M'Nutt thinks that when the presentation is natural the extravasation is chiefly at the base, and that when the head is born last the blood is chiefly over the convexity; but post-mortem cases are too few at present to settle this question.

When the hæmorrhage is on the vertex, it occurs usually symmetrically, and the clot is generally thickest over the motor area, and especially near the longitudinal sinus; and as the centre more especially representing the leg occupies the margin of the longitudinal fissure and the paracentral lobule on the median aspect, we can understand why the legs are often more severely affected than the other limbs, and also why both are usually affected, resembling paraplegia due to disease of

the spinal cord. The chief difference in the state of the legs in paraplegia from its state in hemiplegia is, the much greater spasm in the former (paraplegia). This is easily explained by Broadbent's hypothesis, which is: "Movements are represented exclusively in the opposite hemisphere in proportion as they are unilateral or voluntary (as in the arm); in both hemispheres in proportion as they are bilateral or automatic (as in the legs)." In other words, either hemisphere can excite bilateral movements, but only the opposite one can excite the unilateral movements; and, therefore, in hemiplegia innervation from the hemisphere of the same side acting through the lower spinal centres, ensures some recovery of power and moderation of the spasm. But if both centres are implicated, as is usually the case with the legs, compensation cannot occur; and bilateral degeneration, or perhaps arrest of development of the pyramidal tracts, occur, producing the same results as if due to primary disease of those tracts in the cord.

If the hæmorrhage spreads downwards, it will next affect the centre chiefly representing the arm, and the last to be involved will be the face-centre and the centre for speech. It follows that the pressure on the arm- and face-centres being less than that on the leg-centre, the former parts will have most chance of recovery, both by restoration of the damaged cells to a slight extent, but more probably by compensation taking place on the same and opposite sides of the brain. For the same reason, we are more likely to get choreic movements in the upper limbs; for, as Hughlings Jackson says, "In chorea we find persisting paralysis, with over-movements of the same parts: what has been called loss, or defect of voluntary co-ordination in the disease, is indirect evidence

of some paralysis; the involuntary disorder of co-ordination is owing to over-activity of movements left."

Epilepsy from birth may, no doubt, be the only symptom of a very small but similar lesion.

The exact part of the cortex, injury of which will cause the mental symptoms found in these cases, is doubtful, owing to the difficulty of finding limited lesions not causing other symptoms as well. From the experiments of Ferrier, it would seem that the præfrontal lobes were especially concerned in mental processes; but Rosenthal, Bastian, and Hughlings Jackson think that psychical disturbances are incomparably more frequent, owing to destruction of the occipital lobes. At any rate, it seems certain that bilateral affections of the cerebral hemispheres—such as we see in the severe cases of birth palsies—are especially liable to produce mental defects, most probably due to some microscopical changes of the cortex both in front of and behind the so-called motor region.

The defects of speech may be divided into (1) motor aphasia or aphemia, and (2) where it is due to weakness of intellect. The boy W. F. belongs to Class 1; for his intelligence seems to be very fairly good, for he makes himself understood by filling up the defects in speech by gestures. The reason that his speech is so long in recovering is due, I think, to the fact that both the left and right lower frontal convolutions were damaged; for if only the left one had been affected, the right one would, being normal, have performed the work usually done by the left from the first.

The direct evidence we have that this is the correct pathology is the following:

(1) Children who have died very soon after birth, with

the above symptoms of cerebral disturbance, have presented, on post mortem examination, symmetrical meningeal hæmorrhage, thickest over the motor area, and especially over the leg-centre.

(2) In post mortem examinations of children who have lived for some years, depression and shrinking of the motor areas on both sides have been found, more marked over the leg-centre, and gradually diminishing as you approach the area for the face. This shows that formerly there was pressure over this area, and, combined with the previous evidence, that it was exerted by extravasated blood which had been slowly absorbed.

PROGNOSIS.—Contrary to the general run of nervous cases, the prognosis in these cases is, on the whole, good. The symptoms tend to lessen gradually of their own accord as the child's age increases; and therefore we can always tell the parents, except in the very worst cases where there is actual idiocy, that the disease tends towards cure. With the latter exception, all the cases after a time stand, and then begin to walk. The little boy W. F. went about on his hands and knees until he was about eight years old, and now he can walk fairly well.

A great guide in the prognosis is the mental capacity, which we cannot gauge for two or three years after birth. It is important for two reasons: First, because the worse the defect of mind, so much the worse is the general prognosis; and secondly, if the child can concentrate his attention, and will deliberately try and help his muscles to work, the greater is the prospect of motor improvement: so you will see that the future power of progression depends a good deal on the mental defect; but the reverse does not hold good, for a child's motor power

may be very little affected, but yet his mental symptoms may almost amount to idiocy, and never improve, or but very little. In those cases of slight mental defect, the intellect will be later in developing than in other children.

The prognosis as to the cure of the epileptic fits must be guarded, and the result of treatment watched. The prognosis, according to Gowers, is not so good as in idiopathic epilepsy; but is better than in epilepsy following hemiplegia in children. The early commencement of the fits renders the prognosis worse than if they began after puberty.

The improvement in the muscular spasm and in co-ordination is very slow for the first few years of life; but when once they are able to stand and walk alone, their improvement is much more rapid; but in all severe cases there is always some spasm, producing a peculiar gait, left. The choreic movements, if severe, often improve markedly along with the other symptoms.

DIAGNOSIS.—The most important distinctions from other cerebral diseases are:

(1) There is no history of any definite onset at any time after birth.

(2) The weakness and spasm of the limbs does not get gradually worse; but if not stationary, the tendency is always to improvement. If the child is over three years old, and is getting worse, you may be pretty certain that it is not a case of "birth palsy."

If the case is of the bilateral type, affecting both arms and legs, it will have to be diagnosed from—

Tumour in the Pons—usually tubercular or a glioma—may cause paralysis with inco-ordination, and sometimes with choreic movements. In these cases there is a history

of definite onset and progressive deterioration, with perhaps optic neuritis, headache, and affections of sensation of the limbs and of the fifth nerve and other symptoms of tumour, to guide you.

If only the legs are involved, the arms and face escaping, it will have to be distinguished from *paraplegia from pressure on the cord.*

If it is a case of birth palsy, you will usually find some awkward movements of the hands (I cannot find any in the girl N.), and there is no history of definite onset. Primary lateral sclerosis is, I believe, unknown in children; paraplegia at this time of life being generally due to spinal caries, in which case there will be symptoms of nerve-root irritation, such as girdle and lightning pains, often with angular curvature and spinal tenderness, with loss of control over the bladder and rectum. In neither case will there be marked muscular wasting.

Pseudo-hypertrophic paralysis resembles this disease in that the child walks later than usual and in an awkward manner, the muscles are not wasted—some often enlarged—and liability to contraction of the calf-muscles. It is distinguished by the facts, that it is often hereditary, so that more than one child may be afflicted in the same family; it tends gradually to get worse; and there is often congenital absence of the sternal part of the pectoralis major, with its associated muscle, the latissimus dorsi, often combined with enlargement of the infra-spinati.

In birth palsy the contraction of the gastrocnemii can be overcome by steady pressure on the sole, as it depends on muscular spasm; while in hypertrophic paralysis there is structural shortening, often with enlargement of the belly of the muscle, which cannot be overcome. The knee-jerks and superficial reflexes in the latter are never

increased: they may be normal, but more often they are diminished or lost; while in cases of birth palsy they are increased.

From progressive muscular atrophy of children—a not common disease—like the case whose photograph I hand round: the muscular wasting, accompanied or followed by paralysis without any active spasm, although there may be organic shortening of the calf-muscles secondary to paralysis of their opponents, as in the photograph, together with the history that the child walked well for a few years, and the diminution or abolition of the reflexes, will easily settle the question.

From congenital talipes equinus or equino-varus it is important to distinguish it, as what is good treatment in the one does no permanent good in the other. It must be remembered that in the true talipes, due to malposition of the feet in utero, there is permanent shortening of the muscle; while in the other case there is only active contraction with no real shortening, and therefore tenotomy can do no real good.

The history of the case, the exaggerated reflexes, ability to flex the ankle considerably by pressure on the sole, besides the affection of the muscles of the thigh and of the hands which may often be found, will easily distinguish the case of birth palsy.

Acute spinal paralysis of infants is recognised by its usually definite onset with pyrexia and vomiting, followed in the course of a few hours or days by signs of paralysis, which in the course of a few weeks partly recovers, that limb or part of limb not recovering exhibiting well-marked muscular wasting with the reaction of degeneration. If it occurs in a very young child, its onset may be readily overlooked, and the parents then often date the disease from

birth; and as the anterior tibial muscles and the extensors of the knee are the muscles very often involved, the deformity produced resembles that found in birth palsy: but in the cases of spinal paralysis the muscles on the anterior surface of the leg and thigh will be more or less wasted, the reflexes will be much diminished or quite gone, pressure on the sole will not flex the ankle, and the other leg may be perfectly sound.

In those rare cases in which the disease spreads from the grey matter in the cervical enlargement to the lateral columns the legs will present the same spastic paralysis as in birth palsy, but there will be found muscular wasting in the hands and arms. If the transverse myelitis attacks the lumbar region, there will be the acute onset, followed by wasting of some of the muscles of the legs, to guide one, together with some slight or more severe anæsthesia of them and girdle-pain round the trunk at the level of the lesion, combined with bladder and rectal troubles. In none of these cases will there be the choreic movements and spastic inco-ordination so common in the hands of the cases of birth palsy.

In Friedreich's disease, or hereditary locomotor ataxy, there are, as the name implies, other members of the family very often affected. The child walks well for some years, the disease generally manifesting itself about the sixth or seventh year, sometimes before, with ataxy of the legs, which in the course of a few years spreads to the arms, head, and neck. The knee-jerk and superficial reflexes are lessened, except in one recorded case, and there is often nystagmus. There is always a tendency to grow worse, although it may not appear to shorten life; but they usually die between five and twenty years after the onset.

If the case is hemiplegic in character, it will have to

be distinguished from *acquired hemiplegia of children*, which results either from thrombosis of a surface-vein following some weakening illness, as one of the infectious fevers, or occasionally from embolism, or, according to Strümpell, from an acute polic encephalitis. This latter affection is chiefly found during the first five years of life; but it comes on suddenly with convulsions, and the leg may after a time get well, leaving only the arm affected, which alone is afterwards convulsed if convulsions recur. In birth palsy the symptoms, if carefully examined, are rarely hemiplegic: one side may be more affected than the other; but if you examine the other or supposed sound side, you will find some slight disturbance of the motor power present, especially in the finer movements of the hands and feet.

Treatment.—In all the destructive lesions of the brain from hæmorrhage, tumour, or embolism there are usually two directly opposite states to take into consideration in any treatment adopted. There is what is known as the negative functional state, or paralysis due to actual destruction of nerve-tissue, and which cannot be influenced so much by drugs, as strychnia, as is sometimes supposed; for, as Hughlings Jackson has said, "it is like treating a hole in the brain." Then there is the diametrically opposite state—the positive, super-positive, or over-functional state—met with in chorea, epilepsy, and muscular spasm. The two states may co-exist, and they do so in the cases before us. Some elements of the motor nervous arrangements have lost function, as seen by the weakness of the limbs; whilst other elements of the same set are in a state of over-function, as shown by the spasm in all the cases and by the epilepsy in the boy; and in fact it is this state of over-function of the remaining nervous

elements which is the cause of the most apparent symptoms, and which is the great hindrance to the acquirement of the proper use of the limbs. From this preliminary statement it will be seen that all drugs classed as nervine tonics cannot possibly do much good, and may do great harm; for they cannot overcome the negative functional state or paralysis, and they are very likely to increase the super-positive functional one or spasm, which we want carefully to avoid. We must therefore devote all active treatment in trying to allay the spasm, which may be done by gentle massage of the muscles, and by gymnastic exercises to increase the power and rhythmical working of the various groups of muscles. To prevent increasing deformity of the feet and legs likely to ensue from the child walking on the edge of the feet, suitable instruments may be used, provided that with their help the child is enabled to stand and have more use of his limbs than he had without them. Tenotomy, as I have said can do no permanent good; and the same may be said of electricity, according to Gowers: after both the child improves, but that is only from lapse of time and not in any way the result of treatment.

We have not yet arrived at the stage of trephining new-born infants with the intention of removing the clot: and, considering the size of the clot, it is doubtful if it could be extracted; and if it was, whether the child could possibly survive the operation.

A good deal might be done in cases with motor asphasia or aphemia, like the boy W. F., to increase their power of articulation by showing them how to place their tongues and lips for utterance, and then making them emit a musical or non-musical breath according to the sound required.

The only other feature in the treatment necessary to speak of is that of the epileptic fits which are met with in some cases; in what proportion of cases I do not know. The cause of these fits is a "discharging lesion" composed of cells whose nutrition is abnormal, and whose power of resistance to the explosion of nerve-force therefore is diminished. What we have to aim at in treatment is, by the administration of drugs, to increase the stability of these cells, and so, by prolonging the intervals between the fits or arresting them altogether, to break them so to speak of their vicious habit. Treatment should be begun as early as possible for the shorter the duration of the disease, the greater is their chance of arrest. Bromide of potassium certainly diminishes the frequency of the fits in the boy W. F., and I think very likely might cure him if he would only persevere regularly in treatment. Perhaps the fits naturally decrease in frequency as the motor symptoms improve. Twice in the last year he has been in "status epilepticus" for several hours at a time. In passing I may remark that the "status epilepticus" requires very different treatment from the ordinary epileptiform convulsion. Stimulants and food may be required, and chloral-hydrate injected into the rectum gives the most permanent good results: but while this has time to act chloroform may be administered; but as a rule, according to Gowers, the latter does not give such a permanent result. In the first attack I saw him in, I injected twenty grains of chloral into the rectum with very good results. In the second attack Mr. Willcox administered chloroform, the effect of which had to be kept up several hours to prevent the return of the convulsions. Of course there is the possibility that the second attack may have been a severer one, but as

far as I can judge the chloral gave the most satisfactory result. If drugs do arrest the fits, it is very important, according to Gowers, as in all cases of epilepsy, to continue them in undiminished doses for at least two years after the last fit, and then gradually reduce the dose for another year. If you let the fits return, you will have most probably to begin the cure again, just as you have if a congenital hernia reappears after some months of truss pressure.

Case 1.—E. N., a girl aged 8½ years. She is the eldest of four children, the remaining three being free from any deformity. The mother states that she was in labour seventeen hours, but was delivered without forceps, the head presenting. The child has never had any convulsions or illness.

The mother never noticed anything the matter with the child until she found that the latter could not walk at the usual time, and then the legs were found to be more or less stiff and the heel was drawn up.

She began to walk with help when she was four years old, and ever since she has gradually improved.

December, 1888.—She walks, with the help of a stick, as if her hips were stiff, rather shuffling along and taking short steps, the heel being rotated outwards on lifting it off the ground. She can only dorsally flex the feet to a right angle owing to the tension of the calf-muscles, but by pressure on the sole the foot may be still further flexed. The plantar arches are slightly increased, but there is no hyper-extension of the first phalanges or clawing of the toes. The hips can only be slightly flexed without previously flexing the knee to relax the hamstrings, and they cannot be separated very widely apart owing to spasm of the adductors. The knee-jerks

are very brisk, but there is no ankle-clonus. There is no paralysis or spasm of any of the muscles of the hands, arms, or face. Her speech and intelligence are good, and she goes to school.

Remarks.—In this case of the paraplegic type of "birth palsy" the lesion was bilateral affecting that part of the brain especially representing the leg on each side of the longitudinal fissure. Contrary to the ordinary rule, I can find no affection of the arms. The slight increase of the plantar arches is due to the original weakness of the flexors of the ankle, followed by dropping of the foot in front of the transverse tarsal joint, with secondary contraction of the plantar fascia.

The diagnosis of this case from congenital talipes equinus or spastic paraplegia due to spinal cord disease, I have already pointed out.

Case 2.—W. F., a boy aged 11¾ years, is the youngest of eight children. The mother was subject to epileptic fits for twenty-five years before her death in 1887. The birth, as far as I can gather from the father, seems to have been natural, but the real facts are difficult to obtain.

When seven or eight months old he began to have epileptic fits, which have continued until the present time, although not so frequently during the last two years. When it was time for him to walk it was found that it was impossible; and if held up, only his toes touched the ground and the knees were flexed owing to contraction of the calf- and hamstring-muscles. It was also noticed that his hands were used very awkwardly, so that he had great difficulty in feeding himself. For several years he could only make inarticulate sounds, but understood what was said to him, and made others understand by gestures.

He has always been cleanly in his habits. Up to the middle of 1886 he used to get about the house on his hands and knees, but since then he began to stand and get about by steadying himself against objects as he went along.

June, 1888.—Walks very unsteadily by himself with the legs widely separated and rather rigid, and his feet extended, bearing the weight of the body on the balls of the toes, the heels not quite touching the ground. There is no marked wasting of any of the muscles of his arms or legs. The knee-jerks are very much exaggerated but there is no ankle-clonus. The ankle can be passively flexed very readily by upward pressure on the sole. The hamstrings are in a state of spasm, and so prevent him fully extending his knee, but there is no marked spasm of the adductors.

There are no spontaneous movements of his legs or arms.

In the arms there is slight spasm of the biceps, which is readily overcome. On telling him to hold his arms out straight you will see that the wrists are hyper-extended, as are also the phalanges. On being told to pick up a pin he hyper-extends his wrists and phalanges and separates his fingers, and then picks it up by slowly approximating the tips of his first finger and thumb, still in the extended position. He closes his fist slowly but firmly. There are no choreic movements of the hands on movement.

There is no spasm of the muscles of the back or neck.

There is no facial paralysis or spasm when at rest; but the muscles round the mouth and the muscles that close the jaws are thrown into spasm when he attempts to answer questions, the teeth being firmly clenched at that time. It is very difficult to understand what he says.

He is unable to protrude his tongue much beyond the incisor teeth when told to do so, nor has he ever been noticed to protrude it of his own accord.

In the epileptic fits in which I have seen him, rigidity of one or other side, the head and eyes deviating to the same side—that is, away from the side of the lesion,—have been the early symptoms.

March, 1889.—His symptoms have gradually been improving: his speech is decidedly more distinct; his walking is firmer, the heel coming nearer the ground. The epileptic fits continue as before—perhaps less frequently—happening more often when he is in bed than during the day.

Remarks.—This case is an example of the double hemiplegic class of "birth palsy," the lesion involving more or less the whole motor tract on both sides, including the centre for speech, but not affecting the occipital or præfrontal lobes, and so not causing any marked mental or sensory symptoms.

This case illustrates the long time a child may be unable to stand (eight years), and yet recover very useful walking-power by the age of 11. It also illustrates the general rule, that in recovery from hemiplegia those movements are first restored which are bilateral and most automatic; the unilateral or least automatic ones, such as the fine movements of the fingers and thumb, being the last to recover, just as they very often are the first to be affected in some chronic degenerative changes of the central nervous system — for example, progressive muscular atrophy and paralysis agitans,—both of which usually begin in the small muscles of the thumb and index-finger, the least automatic or most voluntary part of the least automatic limb—the arm.

CASES OF ORAL SURGERY.

By NELSON C. DOBSON, F.R.C.S., Surgeon to the Bristol General Hospital, &c.

I HAVE now under my care a series of cases illustrating several phases of the surgery of the mouth, of which I select the five following examples:

Case I.—Excision of superior maxilla for sarcomatous disease.

A woman, aged 54, first came under my care in 1885. She then complained of severe neuralgic pains in the left side of her face; but there was no sufficient reason to account for this. The neuralgia was persistent, and did not yield to medicines. I went away for my summer holiday; and on my return, noticed that the upper jaw, above the alveolus, was thinned; and there was some obstruction to the left nostril. There was now no doubt that there was a rapidly-growing tumour in her antrum. Accordingly, I took her into the hospital, and removed her superior maxilla on Sept. 10th. I did a preliminary laryngotomy, which materially facilitated the operative proceedings, and allowed of the uninterrupted administration of chloroform. The patient made a good recovery, and left the hospital in a few weeks. The growth was a sarcomatous one, but I have no distinct record of the microscopic appearance. She remained well for some time; but early in 1887 she showed signs of recurrence, as seen in the mouth, but more especially in the temporal and zygomatic region. I suggested, but did not press, further operative proceedings. From this time onwards she suffered much, and there was considerable swelling and some suppuration about orbit and temporal region.

The eyeball was becoming prominent, and her local condition was such that I thought no further active interference wise or possible. However, after considerable suppuration, the mass in the mouth seemed to subside and the external swelling to diminish, and in January, 1889, I removed the projecting and spoiled eyeball, and the patient is now fairly well. It seemed as if the sarcomatous growth had suppurated out, and the disorder appears to be declining. The points of interest appear to be: the neuralgic and altogether subjective symptoms in the early part of the malady; the recurrence and sloughing, which seem to have led to more or less of a cure; and the question of preliminary laryngotomy in this and similar cases.

Case II. was an instance of epithelioma beginning in the alveolus and soft parts of the hard palate. A lady, æt. 74, was sent to me by one of my medical friends with an extensive epithelioma of the alveolus and soft parts of the palate on the left side: the disorder had reached an advanced stage when I first saw this patient in April, 1888, and there was, in addition to a well-marked epithelioma of the palate, very considerable enlargement of the cervical glands. The patient suffered much pain, so that taking food was a matter of considerable difficulty. She did not appear to appreciate the gravity of her condition; and though I could not promise much respite from her present suffering, she consented for me to do what I could for her under the circumstances. Therefore, on May 1st, 1888, I dissected off and scraped, and gouged away all the diseased structures as far as was possible. This was a work of some difficulty, and there was pretty free bleeding. I did not attempt to remove the glands, as I explained to the patient that it was not possible to relieve her for more

than a short time of the extreme suffering she was having from the growth in the mouth. I saw this patient again in November last: there was then some recurrence in the mouth, and the cervical glands were distinctly larger; but she had been free from pain since May last. Of course there was only the prospect of steady increase in the disease. This case was an illustration of palliation of the disorder for a limited period.

Case III.—A woman (E. A.), aged 60, applied at the hospital with a sore over her gum of the lower jaw, on the right side, extending into the floorof the mouth: there was a projecting tooth in the upper jaw, which appeared to irritate the sore. I had no doubt the condition was one of epithelioma; but as it appeared to spring from the alveolus and to be fairly localised, I thought I could remove it from within the mouth by dissection, scraping, and gouging of bone. This I did on November 8th, but the disorder proved more extensive than I imagined. Although I was fairly satisfied with this proceeding, yet I was doubtful whether my removal had been sufficiently extensive: there were, however, soon signs that a more extended operation would be necessary; and on December 13th, 1888, I removed the right half of the horizontal ramus of the lower jaw, together with enlarged submaxillary glands and all the soft parts constituting the floor of the mouth on that side. To do this I cut down the median line of the lip and reflected the skin along the lower border of the jaw as far as the angle; a drainage-tube was brought out through the incision, and the wound healed perfectly. The soft parts contracted, and the difficulty in moving the jaw and the apparent deformity was wonderfully little. I fear, however, now (March 13) there is a tendency for the cut on the horizontal ramus to

show signs of recurrence, and I expect I shall remove the remaining part of the horizontal ramus. I have on a former occasion removed the entire half of the lower jaw, including condyle, and I have also removed simultaneously the greater part of both superior maxillæ; but I have never, up to now, removed the whole of the horizontal ramus of the lower jaw. The disorder in this case appears to have commenced in the alveolus, and to have extended to the bone itself; for it is the bone which is most actively taking on fresh action.

Since this paper was written, I have removed the whole of the horizontal ramus which was left after the first operation.

Case IV. is a case of malignant tumour of the tongue in a man of 68, and on whom I operated on January 31st, 1889. His family history was good, and there was no history of syphilis. He had only been complaining of discomfort in his mouth for about two months before I saw him; though I have no doubt the tumour has been growing longer than this time. When I first saw him on January 26th, 1889, the left side of the tongue, to quite close on to the epiglottis, was occupied by a firmish tumour the size of a walnut: the outline of the swelling was smooth, and the mucous membrane unbroken, except a small patch on the inner margin. The appearance of this small sore was that of an ordinary epithelioma; the swelling was well limited to the left half of the tongue. There was no glandular enlargement. I determined to remove only half of the tongue, which I accordingly did on January 31st. The patient being under chloroform and the mouth opened by a gag placed on the right side, I transfixed the tip of the tongue by a stout ligature on each side, and then, holding the tongue upwards, I cut

along the floor of the mouth quite close to the jaw, dividing freely the mucous membrane as far back as the anterior palatine arch; I also cut across the anterior pillar of the fauces. Next I cut freely down the exact middle line of the dorsum, dividing freely the mucous membrane in this situation, and completely dividing all the structures of the tip of the tongue: then, taking the ligatures which were passed through the tip, one in each hand, and drawing them towards their respective sides of the mouth, I quickly and easily, with my index-fingers, divided the tongue into two halves. I now took the ligature attached to the half I intended to remove and drew it forcibly upwards and forwards, dividing with scissors any tissues which prevented this half of the tongue being freely drawn out: when I judged I had sufficiently freed the tongue, I thrust a strong curved needle, on a handle, beyond the limits of the disease, and quickly cut off the tongue with a small wire ecraseur. Just before the final separation of the tongue by the wire there appeared to be only vessels in the loop, and I therefore passed a catgut ligature around this and divided it. During the operation, which is the one advocated by Mr. Morrant Baker, there was very little hæmorrhage or difficulty of any kind. With the exception of Whitehead's method, which I have never practised, and of which therefore I cannot speak, this seems to me the easiest, simplest, and safest operation for removal of one half or the whole of the tongue. I have several times operated on the tongue, but this was certainly the easiest operation I have ever done of its kind. Unfortunately, it is not suitable to cases where the floor of the mouth is much involved. In such cases I have found Symes' operation to be the best. The tumour presents on section a well-

marked and distinct outline, and this case especially looks more like a sarcoma than an epithelioma, though sarcoma of tongue is exceedingly rare.

Case V. is a case of epulis growing in the mouth of a man aged 19, and is chiefly remarkable from its size and for the fact that an individual could in these days allow the growth to assume such proportions. The tumour, as far as could be ascertained prior to operation, sprang from the alveolus of the right side of the lower jaw. He states that it has been growing seven years and that once an attempt was made to remove it, but it was not then thoroughly removed. When I saw the patient in February last, the tumour filled the right side of his mouth, pressing the tongue backwards; it also projected to near the roof of the mouth, and caused a considerable bulging of the lower lip. I could not quite define its limits, but felt that it was attached to the alveolus, and I was prepared to remove a portion of the whole thickness of the jaw: however, I succeeded in chiselling off the alveolus with the tumour attached; the hæmorrhage was pretty free from the bone, which I stopped by pressure and thermo-cautery. The tumour, which is as large as a fair-sized apple, is mostly fibrous in structure, with bony fragments scattered through it. It is the largest tumour of its kind I have ever seen.

Health-Resorts in the West of England and South Wales.

II.

CLIFTON.

BY

JOHN BEDDOE, M.D., F.R.S., &c.

CLIFTON has grown in little more than a hundred years from a village, which strove to combine rustic simplicity with the quality of a fashionable watering-place, into the extensive and populous West-end of the neighbouring city. The Clifton of to-day occupies nearly a square mile of surface, bounded on the east and north-east by Bristol and its northern suburbs; on the south by the floating harbour of Bristol; on the south-west by the Avon in its deep and picturesque gorge; and on the west and north-west by the same, but with the interposition of those high and breezy limestone plateaux, covered with short sweet grass and dotted with hawthorn bushes, all blushing and fragrant in the month of May, which are called Clifton and Durdham Downs.

Along the harbour stretches a narrow alluvial strip, which, with the lower portion of the adjacent slopes, is occupied by the district called the Hotwells, densely peopled by a miscellaneous but largely sea-faring community, many of whom dwell in old mansions of some pretension, now cut up into tenement houses.

The higher slopes, and the rolling ground abutting on the downs, are much more thinly inhabited; the houses are of modern erection, generally of oolitic freestone or of the native limestone, interspersed with open spaces and garden ground. This district is occupied by those who have resorted to Clifton for social, educational, or sanitary reasons, and by the upper class of Bristolians, with those who minister to their service and purveyance; and here are the principal hotels and lodging-houses, the College, the Assembly Rooms, the Academy of Arts, &c. The best portion of this district consists, like the adjacent downs, of carboniferous limestone, unfortunately capped in places with a thin layer of boulder clay: lower down are found the millstone grit, ferruginous marl, and beds belonging to the new red sandstone. The surface lends itself well to drainage, both superficial and deep; the roads dry easily, and water-carts are welcome in the spring.

Builders are commonly said to have spoiled, at Clifton, one of the finest sites in Europe. They could not spoil it altogether, nevertheless. The crescents, towering one above the other, have a stately aspect from the valley to the south, as one rushes along the railway towards Exeter. The Suspension Bridge, though far from being, as it once was, unrivalled in span throughout Europe, is still a marvel of beauty and a triumph of engineering: one must go as far as to America to find its superior in loftiness and in picturesqueness of surroundings. It affords access, moreover, to the Leigh Woods, a tract of very beautiful sylvan scenery, the delight of landscape painters, such as is nowhere else to be found in the immediate neighbourhood of a great city.

The gorge through which the Avon cuts its deep and

devious way is still magnificent, though some of its salient angles have been rubbed away in the interest of commerce, and, as Robert Hall said, "the Corporation of Bristol have sold the sublime and beautiful for sixpence the cart-load." At the bottom, within sight of the bridge, is the once famous Bristol Hotwell. The blasting and quarrying operations just alluded to have cleared away the point whence it used to spring; but the well has been recovered, and the water of the river successfully excluded from it.

It was this spring which first made Clifton a place of resort for invalids. In the latter part of the last century dyspeptics, diabetics, and sufferers from gravel and stone, resorted to it with hope and confidence, and *poitrinaires* from the north and east came to try the virtues of the water as well as of the mild climate. Soft, relaxing air was not then out of favour, as it is now-a-days; and the warm undercliff of Dowry Square was the favourite residence. There lived and flourished Dr. Thomas Beddoes, that eccentric genius, one of the fathers of chemistry, the master of Humphrey Davy, and the inventor of inhalation.

The water is not, as many not unnaturally suppose, a cooler dilution of that of Bath, bearing to the latter the relation

"Of moonlight unto sunlight, and of water unto wine."

It is cooler, indeed (about 78° Fahr.),* and much less mineralized, but its constituents are very differently proportioned. That of Bath is a lime-sulphate water, essentially, whereas in ours the chief constituent, the carbonate of lime, preponderates over the sulphate. The

* Weber says 74°; W. W. Stoddart, 70°; Macpherson, 74°.

former water is more suitable for baths, the latter for drinking.

It contains per gallon, according to Herapath:

Carbonate of Lime	17.70	grains.
Sulphate of Lime	9.87	,,
Chloride of Sodium	5.89	,,
Sulphate of Soda	3.01	,,
Chloride of Magnesium	2.18	,,
Nitrate of Magnesia	2.91	,,

with smaller quantities of carbonate of magnesia and of iron, of bitumen and of silica, and some impregnation of carbonic acid and of nitrogen gas.* These proportions are intermediate between those of Buxton and those of Bath; but the resemblance to Buxton is the nearer. The water also stands between Contrexéville and Buxton in most respects, but is rather more mineralized than either of these.

Another near analogue appears to me to be the Stadtbrunnen of Wildungen, which, however, is cold and comparatively concentrated. Now the Wildungen waters, like those of Coutrexéville, have "a special and well-deserved reputation for their curative powers in gravel and the lithic-acid diathesis."† Again, the Clifton water had at one time a great reputation in diabetes. This we now regard as having been imaginary or fictitious; but it may be worth while to observe that the Bethesda water

* Dr. Griffin, who has studied the water within the last few years, and made some careful analyses, has established the existence of copper therein, but has been unable to detect boracic acid. He has found the water susceptible of preservation in good condition for an indefinite time: this quality, among others, doubtless led to its having been supplied, in former years, as an ordinary table-water to the royal family. Mr. F. W. Stoddart, who has also analysed the water, found the same aggregate amount of solids (4.4 per 1000) as Herapath did, but with slight differences in proportion—rather more sulphuric acid, and less of nitric acid and chlorine; rather less lime, and more magnesia and silica. † Althaus and Braun.

of Wisconsin, which a few years ago acquired an empirical reputation in diabetic cases, is an earthy water with about the same proportion of its leading constituent (bicarbonate of lime) as Clifton water has. Of its merits as a beverage in many cases of dyspepsia the practitioners of Clifton have no doubt; and on the whole it is much to be regretted than a recent attempt to bring the water to the upper or fashionable level of the town, and to establish a Spa there, has broken down from lack of funds. The observatory on the summit of Clifton Down, with its magnificent prospect, would afford an almost unrivalled site for a pumproom.

The gradual desertion of the Hotwells was coincident with, and probably mainly due to, the extension of building over the upper levels of Clifton, and the transference thither of the wealthy and fashionable elements of society. *Poitrinaires* and rheumatic patients continued to resort hither; but instead of the somewhat muggy district at the bottom of the hill, they now sought the sunniest and best aspects on the top of it, such as Sion Hill, Prince's Buildings, the York Crescent, and The Mall. Scotch invalids were very numerous at this period, as is still testified by the names of Caledonia and Melrose Place, Hope Chapel Hill, &c.; and doubtless the difference of climate between most parts of Scotland and the West of England is sufficiently sensible to justify, in many cases, considerable expectations as to the result of migration from the one to the other.

The present generation, however, has witnessed a further change, which may be summed up thus. Clifton has ceased to be a watering-place: it is hardly even an invalid-resort: it is the West-end of Bristol, a large educational and social centre, and a place of sojourn for

tourists on account of its local advantages and its beautiful environs. Even the climate has changed: the average annual depth of rain has increased from about 30 to 34 inches; while the atmosphere, always dry compared with that of most parts of Britain, has become drier still, possibly, as Dr. Burder suggests, partly from the extension of buildings and pavements. On the other hand, the growth of Bristol tends to deteriorate the atmosphere, at least during the prevalence of easterly and south-easterly winds; and our November fogs have certainly been aggravated from this cause.

I must confess to a certain amount of scepticism in dealing with meteorological observations made at watering places. It is notoriously difficult to select absolutely fair situations for one's instruments, and a somewhat dry and warm corner is very apt to be convenient in other respects. At Clifton we have been favourably circumstanced, our local observers, Dr. Burder and the late Dr. G. S. Thomson, being men of known scientific eminence and unbiassed judgment. Of late years additional observations have been made by Messrs. Jupp and Rintoul, at Clifton College.

The mean temperature for 15 years (1853-67) appears to have been 48.7° (about half a degree below that of Greenwich), for seven years (1881-7) 49.1° In winter and spring, as in the West of England generally, the mean temperature is above that of Greenwich, in summer decidedly below, and in autumn less so. Snow frequently falls to the east of the Box Tunnel when there is rain or fair weather at Bath and Bristol; but it is in spring that the advantage is most perceptible, vegetation being much more advanced in the West. The rainfall has been already stated: as to snow, in 9 out of 23 winters the

greatest depth of snow was less than an inch, and in 15 it was less than two inches: we have less snow than many places to the south of us. Thunder-storms are certainly rather uncommon; our comparative exemption is probably due to the lie of the Mendips and of the Welsh hills. The mean humidity, which averaged 83.1 in 1853-67, was but 81 in the five years 1883-4-6-7-8. In 1887 and 1888, the only years which I can compare, it was less than that of Bournemouth. The number of rainy days (*i.e.* when 0.01 inch or more fell) averaged, in the five years 1883-7, 170.4 (Burder).

Such being the climate of Clifton, let us proceed to examine its rate of mortality.

In 1875 I read, in the Statistical Section of the British Association, a paper "On the Death-rate of some Health-Resorts, and especially of Clifton." Therein I compared, so far as accessible data allowed me, the death-rates of all such districts in England as resembled Clifton in social character and constitution of population. The figures, taken simply from the Registrar-General's returns for 1871 and 1872, varied from 16.2 for Newton Abbot (Torquay) and 16.3 for Clifton, up to 21.9 for Brighton and 23 for Scarborough. By adding the deaths of persons belonging to the parish, but dying outside its limits in hospitals, workhouses, &c., I arrived at a death-rate of about 16.9, of which the zymotic rate was 1.35. These were very low figures, the former being 4.9 less than should have occurred in a population similarly constituted as to age and sex according to the English Life Table.

Since that time, however, matters have improved further, in Clifton as well as in England generally. The average death-rate in Clifton for the years 1886-87-88 was only 13.3 per thousand, or, after making full allowance

for deaths in public institutions, &c., at most 14.6. This is extremely small, especially if we remember that it applies to the entire parish, including the crowded and poor population of the Hotwells as well as the well-to-do community on the upper levels. The zymotic rate averaged only .95, and that from phthisis .88—both remarkably low;—the respiratory death-rate was 2.6. In the adjoining district of Westbury, which geographically and socially resembles the *upper* level of Clifton, the figures were .58, .84, and 1.61. Corresponding rates for all England in 1886 (the latest year for which we have full data) were 2.6, 1.7, and 3.7.*

To sum up, Clifton is a place which combines in an unusual degree the advantages of town and country, Its high standard of healthiness is no doubt due largely to

* These rates should be augmented, perhaps by as much as 10 per cent., for deaths of persons belonging to Clifton or Westbury, but dying in public institutions outside of these parishes. After this addition, and without any reduction for the deaths of extraneous invalids, the figures continue to be remarkably favourable. To be precise, the phthisical mortality of Clifton with Westbury for the three years 1886-7-8 was less than that of any one of the 680 districts of England and Wales during the last decade (1871-80). It may be objected that this comparison is unfair, inasmuch as the mortality from phthisis throughout the whole country has fallen considerably of late years; so that if we could now quote the mortality-rates for 1886-7-8 of all the 680 districts, we should pretty surely find a few which would stand better than Clifton. This is highly probable; but the statistics for the first of these three years, which are fortunately available, enable me to say that in 1886, at least, there was no district in or around the metropolis, no large town (with one curious and perhaps accidental exception), no part of Kent, Sussex, or Devon, and no district containing a known health-resort, or enjoying a special reputation for its climate, which could vie with Clifton as regards comparative exemption from phthisis. That this privilege is due to climatic advantages becomes highly probable when we note that it is shared, more or less, by a large circumjacent region, containing eight counties, and corresponding roughly with the basin of the Severn. In 1871-80, out of 90 registration districts in which the mortality from phthisis was less than 1.5 per 1000, no less than 44 were included in these eight counties. See also, on this point, Haviland's *Geography of Phthisis.*

good sanitary administration and a good (unventilated) system of sewers, but also to some extent to the natural advantages of its site. Its climate is commonly called relaxing, but is not found to be so by strangers from Devonshire, South Wales, or the Severn Valley. Be that as it may, there is plenty of ozone in the atmosphere, except when the wind blows from over Bristol; and if people do not live very fast, they are not in such a hurry to die as in some more bracing places. Changes are frequent rather than great. The prevailing and strongest winds are westerly and south-westerly, with a slightly marine character. East winds are less troublesome than in most parts of England, though at times bitter enough. North-west winds bring thunder, hail, and beautiful skies beloved of artists. The winters as a rule are rather mild, the springs are as fine as anywhere in England, the summers are cool, the late summer and early autumn rainy, the end of autumn foggy. Many invalids might do well by spending the beginning of winter on the Sussex coast, and coming hither, or to some other western station, after Christmas. Asthmatics often do well here, especially those coming from the north and east. Dr. C. J. B. Williams told me that, of all the places to which he had ever sent asthmatics, Clifton and Budleigh Salterton had best deserved the recommendation. And a wealthy old *poitrinaire*, who had spent twenty years in wandering about all the most famous health-resorts, went so far as to tell Dr. Walshe that "the north side of the Old Mall at Clifton was the safest place in Europe." I ought to record my obligations to Dr. David Davies, medical officer of Health for Bristol and Clifton, and to other gentlemen whose names appear in the text, for assistance kindly rendered in the verification of the facts of this paper.

Reviews of Books.

Elements of Practical Medicine. By ALFRED H. CARTER, M.D. Lond. Fifth Edition. London: H. K. LEWIS. 1888.

The Student's Textbook of the Practice of Medicine. By ANGEL MONEY, M.D. Lond. London: H. K. LEWIS. 1889.

These two books are intended to fulfil much the same purpose. Dr. Carter's, with a somewhat more humble title than Dr. Money's, is rather more bulky; but owing to difference in type, they contain about an equal amount of matter. And the matter in both cases is excellent.

With so much condensation of a large subject there must be failure here and there. The weak part in Dr. Carter's book is the treatment; but in this, perhaps, there is scarcely any harm to be apprehended, as the author only intends to give "hints as to principles." He makes up for his deficiencies in this respect by providing thirty pages of prescriptions which are to be used for various diseases and symptoms. Notwithstanding the warning he gives against slavishly following these, we cannot help thinking that such a list encourages that objectionable practice of treating the disease rather than the patient.

When, as in Dr. Angel Money's book, the "Practice of Medicine" is given in 434 foolscap octavo pages of fairly open long primer type, it may be thought that the power of condensation can no further go.

But we are bound to say that Dr. Money has done his work well. His descriptions are extremely lucid, and we may safely predict the fulfilment of his hope that the book will be useful, not only to students as an introduction to larger treatises, but also to practitioners in their everyday work. It is a pity that a little more care was not given to the proof-reading, although we should have lost the amusing list of *errata* by which the book is introduced to our notice.

Both these books would have been more acceptable if they had been unaccompanied by the very exact information

of the authors' private addresses. Dr. Money also offends by supplying a list of his other publications, including his contributions to medical periodicals.

Bournemouth as a Health Resort. By A. KINSEY-MORGAN, M.R.C.S. Pp. 98. London: SIMPKIN, MARSHALL and Co. 1889.

This is a pleasantly written, abundantly illustrated and thoroughly satisfactory medical guide to one of our best and most popular home health-resorts. The usual geological, hydrographic, meteorological and scenic material is provided with judiciousness and not too elaborately. We could have put up with a little more help towards the selection of cases likely to be benefited by a residence at Bournemouth, and we might easily dispense with the somewhat lengthy account of the disabilities of foreign health-resorts. Bournemouth as a health-resort is one thing; other places as failures in this respect is another and different thing, and can scarcely be properly treated under the former title. True, from both personal and vicarious experience, we most heartily sympathise with the author. We have over-estimated the value of foreign health-resorts and under-estimated the value of home ones. We are too liable to look only to average temperature, or elevation, or sunshine, or sea-air, and so forth, and entirely overlook the thousand and one adjuncts which are essential to the health and comfort of a civilised Briton. It may be true that on certain table-lands and mountains and islands semi-civilised or wholly savage Africans, or Americans, or Australians never have phthisis; it is a late, and often a lame, conclusion to infer that the cultured and refined Britisher who is consumptive may cure himself by reverting to this primitive type and living this life. The balmy, sunny, marine, sheltered and resinous climate of Bournemouth, with its home comforts and its sanitary wholesomeness, cannot easily be surpassed as a means of restoring health in many complaints.

A Guide to the Instruments and Appliances required in various Operations. By A. MAYO ROBSON, F.R.C.S. Pp. 57. London: J. & A. CHURCHILL. 1889.

Mr. Robson has prepared this handy little work as a guide to house-surgeons and dressers who are supposed

to get ready the instruments for surgical operations. The book admirably fulfils its intentions. We have thought that, if the operations were arranged alphabetically, reference would be more easy and rapid; but an excellent index leaves little to complain of in this respect.

Surgeons, like other learned men, differ in their method of instructing their pupils. We, for instance, consider that one good means of teaching a dresser or house-surgeon is to think out or read up the details of an operation for himself, and get out the necessary instruments for each step. A book like this goes some way towards making the dresser's duties easy and their discharge accurate; but we doubt if it makes them to the fullest extent educational.

Treatise on the Diseases of Women. By ALEXANDER J. C. SKENE, M.D., of Brooklyn, New York. Pp. 966. London: H. K. LEWIS. 1889.

This is a large, ambitious, and important work by one well known as an authority on the subject it deals with. Type, illustrations, and paper are of the admirable excellence which so much add to the pleasure of perusing books brought out in America. The illustrations in particular are exceeding well done, and are mostly original.

Turning to the subject matter, the most striking feature is the independence of the writer. He speaks almost entirely from his own educated experience. Even if one differed from his teachings one is glad to welcome the honestly told narrative of a skilful and cultured worker in a field where much tilling has not always been followed by abundant fruit.

To traverse the whole range of the work would be impossible in a review extending over many pages. The most noteworthy chapters are those dealing with diseases of the bladder, in which the author has clearly been an original student to good purpose. Displacements of the uterus are sensibly and scientifically treated. In the various abdominal operations the author is specially a follower of Keith (to whom the work is dedicated), and he could have no better master. There are certain praiseworthy and judicious omissions, which in most modern works on women's diseases have a prominent position. To these omissions we would call special attention. They belong to the somewhat large class which have been begotten rather by a *pruritus secandi* than by a *spes medendi*.

On only one point would we venture to differ with some degree of confidence from our author; and that is on a point on which we believe most English surgeons would differ with our American brethren. There is too much assistance, human and instrumental, at all operations and examinations. For instance, we are told that for ovariotomy "three assistants are certainly needed, and one more may be required." What is the poor surgeon to do amongst so many? In the use of instruments Dr. Skene is far more sparing than most American gynæcologists: he recommends only two varieties of specula, and figures only four uterine sounds. Among the specula Fergusson's (not Ferguson's) is not mentioned; and we honour the author for the omission, although we think it one of the most generally useful of all.

We have real pleasure in recommending this work to our readers. It represents neither the premature work of the young gynæcologist seeking for practice nor the library production of the literateur seeking for reputation, but the simple, sagacious, outspoken opinions of one who has had much experience and made the most of it. This last one is by no means the least important of the noteworthy works on gynæcology which America has recently given to the world.

Elements of Histology. By E. KLEIN, M.D., F.R.S. New and Enlarged Edition. Pp. 368. London: CASSELL & Co. 1889.

This is a really admirable specimen of a students' text-book. Written in concise and clear language, arranged in simple and scientific sequences, and abounding in illustrations of the very highest excellence, it is undoubtedly, bulk for bulk, the best work on the subject in the English language.

Some ten reproductions of histological micro-photographs by Mr. Andrew Pringle are given. We fear that the author in speaking of these as "the only really good histological micro-photographs that have as yet been published in any text-book" has been influenced by kindliness of feeling rather than by critical insight. These micro-photographs are certainly the only illustrations in the work that are not really excellent, and they are inferior to others which we have seen in text-books, notably some which have in several works appeared as copied from photographs taken at the United States Army Medical Museum.

A Text-book of Physiology. By AUSTIN FLINT, M.D., LL.D. Pp. 872. Fourth Edition, entirely re-written. London: H. K. LEWIS. 1888.

Flint's *Physiology* is a classic well known and much valued on both sides of the Atlantic. This edition has been entirely re-written, historical references have been much curtailed, discussions of unsettled questions have been avoided, and the work seeks to represent, on the authority of a cultivated teacher, the state of physiological science as it is at the present time.

In comparing the work with the best known English ones, those of Landois and Stirling, of Foster and of McKendrick, we should say that it contains less of matters purely experimental than any of these; that it dwells more on established truths; and that, although it makes no special pretence thereto, it has more direct bearings on the practice of our art. Its peculiarities are, in some senses, its chief recommendation. It supplements our English works, presents new points of view, and exhibits, as compared with them, a differently balanced treatment of the whole subject. In another aspect this special value may militate against its favourable acceptance in this country; this is, when the average British student faces the average British examiner.

One feature of the work, which alone is sufficient to display its American origin, is the excellence of the manner in which it has been brought out. In paper, printing, illustration, and general form and handiness, it is far ahead of the ordinary British specimen of book-making.

Masso-Therapeutics. Fourth Edition. By WILLIAM MURRELL, M.D. Pp. 236. London: H. K. LEWIS. 1889.

Lectures on Massage and Electricity. By THOMAS STRETCH DOWSE, M.D. Pp. 379. Bristol: JOHN WRIGHT AND CO. *No date.*

These two works, dealing with the same subject of Massage, may properly be reviewed together.

The objects of these works may partly be deduced from their prefaces.

Dr. Murrell says: "By masso-therapeutics I mean the scientific aspect of the subject; massage, that is, simply as a therapeutic agent, and not massage as a means of earning a living or as a modified form of hotel-keeping. It must be

admitted that many people regard massage and all that appertains to it with a good deal of suspicion, and not without reason." Note that Dr. Tibbits has published a set of lectures specially designed to teach persons how to earn a living by massage.

Dr. Stretch Dowse hopes, with respect to his lecturse, "that in their publication his worst enemies will see no reason to insinuate that they have been produced from any other than purely professional motives; . . . and he lays no claim to any special merit or originality, neither has he brought forward any *wonderful* cases that he has cured." We heartily re-echo his hope; but we are sorry that he has not given us some wonderful cases of cure. Surely they would have enhanced our estimate of the value of massage. Most men do record their best cases in support of a line of treatment they advocate. Why should not our author?

In each of these works a special page or pages of advertisement of "works by the same author" is provided for our perusal.

In each of them we are warned again and again against the tendency which massage has to degenerate into quackery. In each of them we have impressed upon us the extensive and prolonged education which the massage practitioner must undergo. Says Dr. Murrell: "There is as much difference between Metzger's massage and the so-called English massage as there is between champagne and gooseberry. It is oysters and marcobrunner *versus* ginger-beer and whelks." This, it must be noted, is the work which specially claims to deal with the scientific aspect of massage. And again: "It is just as difficult to learn massage in a few easy lessons as it is to become a *prima donna* by this simple means."

Dr. Stretch Dowse comes near our homes. He tells us (p. 253) that 'Mr. W. H. Freeman, the Surgeon" (note the definite article) "to the Bath United Hospital, has written an intensely interesting work entitled 'Thermal Baths of Bath, with the Aix Massage and Natural Vapour Treatment.' Mr. Freeman did me the honour," &c., &c. . . "Nothing can surpass the new baths which have been and are still being erected under the very able supervision of Mr. Freeman." We wonder how Mr. Freeman and his colleagues will like this.

We have preferred to let these authors review themselves as far as our space will permit. We wish we could have presented our readers with each author's opinion of the merits of the work which he did not write.

Lectures on Bright's Disease. By ROBERT SAUNDBY, M.D. Edin., F.R.C.P. Bristol: JOHN WRIGHT & Co. London: HAMILTON, ADAMS & Co. 1889.

It is a genuine pleasure to be able to say that a book is a good one. Of the vast quantities of medical literature published yearly a large proportion is devoid of solidity. Without hesitation we can say Dr. Saundby's book is both solid and good. Of the three sections into which the work is divided, the first on General Pathology contains chapters on Albuminuria, the Pathology of Dropsy, Cardio-vascular Changes, the Pathology of Uræmia, and some other subjects, all extremely well treated and the information brought up to date; in addition to which, a full and excellent bibliography of each special topic is added at the end of each chapter. In the suggestive chapter on Albuminuria we observe no allusion to Adams's observations on this point. Probably they are too recent to be incorporated into the work. The second section is composed of a detailed account of the clinical examination of the Urine in Health and Disease, in which full instructions are given to recognise by appropriate tests every substance of importance found in the urine whether normal or morbid. This, we think, is the best brief practical treatise we have seen on this subject, and will be of use to every practitioner and student. These two first sections of the book we cannot too highly commend. The third section, so far as it relates to the classification of the varieties of Bright's disease, we confess to finding less satisfactory. Dr. Saundby's etiological classification is into Febrile Nephritis, Lithæmic Nephritis, and Obstructive Nephritis. Setting aside the cases belonging to the last of Dr. Saundby's divisions, which mainly corresponds to the so-called "Surgical Kidney" consequent upon stricture, enlarged prostate, and other mechanical obstructions, the main bulk of cases of Bright's disease will come to be ranged under the other two heads, as lardaceous degeneration not complicated by nephritis Dr. Saundby does not consider a form of the malady. It will happen that in a very large number of instances the practitioner will be unable to discover either a past febrile process or present lithæmia to set down as the cause of the particular case he may be investigating; and must then, like Dr. Saundby on page 250, append a note of interrogation to the class to which the case must be assigned even when an autopsy has been performed on the patient. The etiological question has in the treatment of a case not so much to be considered as the pathological condition of the kidney; and in hospital practice especially it is

often quite hopeless to attempt to discover the etiology, or to use it as a working hypothesis when supposed to have been found. Dr. Saundby has devoted an infinity of labour and study to the question; but in making this new arrangement of the modifications of Bright's disease we cannot think that he has dissipated any of the obscurity and difficulty which often surround the differential diagnosis in this disease, but, on the other hand, has rather rendered the subject more complicated than before. Dr. Saundby's admirable book is worth diligent perusal from cover to cover; and, except upon this one point of classification, there is nothing better extant in our language upon the subjects therein treated.

Das Höhenklima in meteorologischer, physiologischer und therapeutischer Beziehung. Von Dr. AUGUST LADENDORF. Berlin: EUGEN GROSSER. 1889.

The first part of this little book has reached us, and in it the author deals with the meteorological conditions of elevated regions in different parts of the world. He treats most elaborately of the power of the sun, the amount of sunshine per year, and the amount of mist brought up by it; also, the direction of prevailing winds, their force and their effect on temperature and rainfall, are set forth in tabular form.

Notes on Preparations for the Sick.

Pharmaceutical and Dietetic Preparations.—H. & T. Kirby & Co., London.

Glycecols, or Improved Glycerine Lozenges.—The basis of these lozenges is a compound of glycerine and gelatine, the former in proportion of 50 per cent., without gum or sugar. They are quite unlike the ordinary lozenge; are of jelly-like consistence, lenticular in shape, and weigh from 30 to 40 grains each. They are sweetened with saccharin and medicated in great variety, are both pleasing to the eye and palate, and form a series which should be the most valuable of all forms of lozenge we have met with. The idea of a glycerine lozenge originated with Dr. Kirby, who coined the name Glycecol to represent the colloidal combination of glycerine and gelatine. We have found that they do not contain sugar, inasmuch as they do not reduce Fehling's solution: they are therefore permissible to diabetic patients, who sometimes devour glycerine lozenges, so called, with such avidity that a large excess of sugar appears in the urine in correspondence with that contained in the lozenges taken.

Piloids.—This form, available for dry drugs, and also for concentrated tinctures, is a modification of the ordinary tablet, containing compressed drugs and chemicals in definite quantities, in lenticular form, and saving both time and trouble in dispensing. Like pills, they possess the convenience of compactness and portability: they may be swallowed whole as pills, taken as lozenges, reduced to powder, or dissolved in water. The accuracy of dose and readiness for use should give great advantages to the country practitioner in dispensing.

We have now and then found that patients will take medicines in the tablet or piloid form when they will altogether decline to swallow a draught; and, when frequent doses are required, the piloids can be carried in the pocket, and easily taken at regular periods.

A large series of these piloids is prepared, containing a great variety of useful drugs in small doses, which may be taken every hour, or as often as may be desired.

Soluble Compressed Pellets, for the immediate production of antiseptic and other lotions and injections.—These pellets, for external use, are put up in coloured bottles; they are intended for vaginal and other injections, two of them being sufficient for a pint of warm water. They are exceedingly convenient, and are a great improvement on all previous methods of dispensing the materials for vaginal and other injections.

Compressed Beef Tablets.—These are prepared from beef, condensed with farina. They are about an inch in diameter, and are enveloped in tinfoil. They may be allowed to dissolve in the mouth, or eaten as biscuits. Four of them crushed into powder, and boiled in half-a-pint of water, form a good soup.

Nutrimentin, or Condensed Farinated Beef.—This is a new alimentary compound, consisting of fresh meat-powder, whole wheat, oatmeal, and other farinas, forming a nutritious food for invalids. It contains all the meat-substance, except bone and excess of fat; it is, therefore, rich in phosphates and salts, and is, weight for weight, twice as nutritious as fresh meat, being made of dry meat-powder combined with oatmeal. It is largely soluble, and is easily digested by patients in even acute and wasting diseases.

Vapour Cones.—CHEMICAL CARBON CO., LIMITED, London.

This ingenious device of the Chemical Carbon Company, for medical and surgical fumigation and disinfection, appears to deserve a cordial reception from the profession, and to be worthy of an extensive investigation.

The material to be volatilised is contained in a small flask, and this flask is surrounded by a hollow cone of pure carbon, combined with an oxidising agent, the whole being mounted on an incombustible base. The glass flask is stoppered with a substance which melts at a low temperature. The cone is used by lighting the top, and the carbonised casing then slowly burns, the flask being gradually heated from above downwards as the carbon burns down. It will be observed that there can be no destruction of the substances to be vaporised, inasmuch as the liquid is rapidly volatilised, and does not boil.

A great variety of these cones are now ready for use, some for general air distribution or direct inhalation, others for the external application of vapours for baths, others for house or chamber disinfection, and others for simple fumigation.

We have tried the ol. pini sylvestris, the camphor-carbolate, and the creasote; and have been much pleased with the way in which they have performed what is expected of them.

They should prove themselves of value in the treatment of respiratory diseases, both for their local action on the mucous membrane and for their germicide powers in bacillary diseases. They must have a wide range of utility, and prove themselves to be superior to all other methods of medicinal inhalation.

Cascara Chocolate Bonbons.—FERRIS & Co., Bristol.

Of the numerous preparations of cascara, this is by far the most pleasing to the eye and palate. Few laxatives have achieved so widely-spread a reputation, and few have established themselves on so secure a footing as the cascara sagrada. The bitter taste has been the one drawback; but an almost tasteless extract is now a possibility, and this in combination with the finest chocolate gives a product in which the taste of the cascara is almost entirely concealed. Each tablet contains a dose equivalent to twenty minims of the fluid extract, and forms quite a luxurious method of administration of a disagreeable but efficient stimulant to peristaltic action.

Boldo-Verne.—THOS. CHRISTY & Co., London.

Boldo was imported into France ten years ago, and has been shown by experiment to be "the antidote to liver complaints, as quinine is that of fevers." Such statements are easy to make, but more difficult to establish by satisfactory proof. We find that it is said to give especially satisfactory results in the convalescence from typhoid fever; but we fail to see any evidence that the patients would not have recovered without it. "Its action upon the liver, known for such a long time in Chili, has been confirmed in France in many cases at Vichy and Paris principally by Prof. Gubler, who has obtained some remarkable results in congestion and functionary troubles of the liver, hepatic colic, biliary lithiasis, chronic hepatitis, bilious affections, cachexias caused by a long sojourn in warm countries." We shall look for the experience of those who are able to ascertain the effects of the drug in a large class of diseases for which new remedies are very desirable.

Thirty to sixty drops of the boldo-verne are taken in water, wine, coffee, or upon a piece of sugar, twice a day for four days. What could be more simple?

PERISCOPE.

MEDICINE.

The Juvenile Form of Progressive Muscular Atrophy.—First recognised by Erb in 1884 as a clinically distinct type, this form includes those cases beginning usually at puberty, and affecting the muscles of the shoulder chiefly—the "scapulo-humeral type." To our knowledge of this rare disease Professor Hitzig, of Halle, contributes four cases.

Case I. was a land-steward, 24 years of age. He complained of increasing weakness for nine months, and for six months had fibrillary contractions in the muscles of the upper limbs. No hereditary influence could be determined, nor could any cause be assigned for the onset. On inspection there was no atrophy; but on the contrary a great number of the muscles connected with the shoulder-girdle presented a markedly hypertrophic appearance, especially on the right side. In the middle part of the deltoid and in the triceps on the left side fibrillary tremors were observed. The motor power was less in the upper arm. The electric examination showed a distinct increase of intra- and extra-muscular irritability. An excised piece of affected muscle showed microscopically the fibres to be much hypertrophied and the sarcolemma nuclei increased.

Case II.—A man-servant, 19 years old. No hereditary history; complained of pain and impaired motion in the right elbow for six months. He showed a rigid contraction of the right biceps: on both sides pectoralis major was markedly developed, on the right side the clavicular portion of the muscle being strongly atrophic. There was an alteration in the relation of the scapula to the chest-wall; calves were normal. There was a slight increase in the intra-muscular irritability in the right biceps; but it was entirely lost in the middle and upper portions of the pectorals. The Galvanic current gives similar results. Microscopically the fibres showed moderate hypertrophy—no atrophied fibres being present.

Case III. was a girl, 21 years of age, well built and well nourished. The disease was said to arise from a blow seven years previous. From that time the right arm gradually became weaker—the left becoming affected two years

later. She complained of tingling in the fingers of the right hand. She presented a characteristic picture of Erb's "juvenile dystrophy": pronounced hypertrophy was nowhere to be seen, although both deltoids were strongly developed and the calves voluminous. The usually affected muscles of the shoulder-girdle were strongly atrophic, with corresponding decrease of the Faradic excitability. Fibrillary tremors were observed on the patient's admission, but were transient. Pieces of muscle were examined from different parts of the greater pectoral. Where the muscle appeared atrophied, the fibres were of moderate size—some hypertrophic, others atrophic,—and between the fibres an amount of fat and connective tissue. In the apparently healthy part the majority of the fibres showed hypertrophy more or less.

Case IV. was a man, *ætat.* 46. No heredity; drank freely; affection began fifteen months before; complained of weakness in the arms and formication. He was a strongly-built man; The tongue deviated slightly to the right. There was a high degree of atrophy of the shoulder and upper arm region. Microscopically the fibres showed hypertrophy; some, longitudinal atrophy; while in other fibres circular atrophy obtained.

These cases support the proposition of Barsickow, that the hypertrophy of the fibres represents an early stage of the atrophic condition. Case IV. resembled the spinal form in that paræsthesiæ occurred early; it ran a more rapid course; the muscles of the hand were affected, and motor symptoms—*e.g.* cramps, increased reflex activity—were present. But the anatomical condition—the enormous hypertrophy of the fibres in conjunction with atrophic states—indicated the muscular form. In the spinal form there is a simple degenerative atrophy. It has also been shown that the early affection of the muscles of the hand does not possess the importance which Erb attached to it. Fibrillary tremors, as in I. and III., are not usually present, while paræsthesiæ and increased reflexes do sometimes occur in genuine cases of "juvenile dystrophy." Hitzig points out that the wing-like position of the scapula supposed to be characteristic of serratus paralysis may occur in this disease—*e.g.* Case III. (where the serratus still reacted)—as indeed it may take place in affection of the rhomboidei and the lower and middle portions of the trapezius. The essential nature of the juvenile atrophy consists, not in any interstitial process, but in a parenchymatous change which shows itself chiefly in a lesser or greater degree of hypertrophy according to the intensity of the disease, thus differing fundamentally

from pseudo-hypertrophic paralysis, where the change is one affecting primarily the connective tissue; and with regard to the differential diagnosis between the muscular and spinal forms of progressive muscular atrophy Hitzig asserts that in many cases it is only possible through a microscopical examination. — *Berliner klinische Wochenschrift*, Nos. 25, 34 and 35, 1888.

Remarkable Case of Cancer of the Dura Mater.— Loewenmeyer recently brought before the Berlin Medical Society a remarkable pathological preparation. The patient from whom the specimen was obtained was a man of 44 years of age. He had sickened some months before with cough, expectoration, and pain in the side. This increased very much, and he was admitted into the Jewish Hospital. There was a serous exudation in the right pleura and infiltration of the right lung. There were no tubercle-bacilli. Malignant disease was suspected. At the autopsy cancer of the right lung was found, a number of nodules being scattered throughout the lung-substance, which was also infiltrated. The left lung was healthy. Besides this there were discovered two cancerous tumours of the dura mater, both about the size of a walnut, lying symmetrically on either side of the longitudinal sinus with their base resting on the dura mater. They had grown through the bones of the skull, forming two circular holes; one, in fact, having grown into the scalp and produced a small elevation there. There was absolutely no sign of brain-affection during life. Professor Virchow remarked on the great interest of the case, and mentioned that both the tumours and the secondary growths in the lungs were epithelial. He attributed the absence of brain-symptoms to the outward growth of the tumours.— *Berliner klinische Wochenschrift*, No. 44, 1888.

A Case of Cocaine Poisoning.—Haenol details a case of a girl, nineteen years of age, in whom a dentist injected into the gum three-quarters of a syringeful of 15 per cent. cocaine solution—that is, about 1½ grains in two portions one after the other. The tooth was extracted, but soon after the patient became pale and fell down, being seized with violent convulsions broken by short pauses. When Haenol saw her she was unconscious, groaning, and could not be roused. The trunk and extremities were affected by clonic spasms, which lasted five hours. Face was not affected; there was no exophthalmos; pupils were moderately wide and reactionless. Temperature at the end of this stage 100.8° F. Pulse could not be counted at first, but later numbered 176 beats.

Respiration was 44. After spasms ceased, the patient lay unconscious for two hours. When she came to, she was unable to stand, could not lift her arm nor press the hand; she had intense photophobia, lessened sensation in the skin, anæsthesia of mucous membrane of nose and mouth, loss of smell and taste, dryness and burning in the throat, thirst and great strangling. Pulse was now 137. Respiration 28. Then cardialgia set in, and lasted for six days, being very severe. Retention of urine for twenty-four hours, sleeplessness for thirty hours, and complete loss of appetite for four days were also observed. Nitrite of amyl, large doses of opium, cold application to head were tried with no success. There was no previous history of fits. The above symptoms coincide with what we know of the pharmacological action of cocaine. Thus Feinberg observed in animals complete anæsthesia, unconsciousness, epileptiform spasms of cortical origin caused by vaso-motor spasm and anæmia of the cortex. Von Anrep found a great increase in the blood-pressure and marked quickening of the pulse, due to stimulation of the accelerative fibres of the heart—not paralysis of the vagus—and also diminution of the mucous secretions. — *Berliner klinische Wochenschrift*, No 44, 1888. D. R. PATERSON, M.D.

A Clinical Study of Acromegalie.—Dr. P. Marie, availing himself of the accounts of additional cases of this disease that have recently been published, and of the results of an autopsy on one of his patients, gives a more complete account of the changes found than he was able to do in his first memoir on the subject.

The most striking characteristic of the disease is the hypertrophy of the extremities, the head, the hands and feet. The hands are enormous, their general form regular but flat, and their size out of proportion to their length. The fingers sausage-shaped, flattened antero-posteriorly; the articulation between the 2nd and 3rd terminal phalanges swollen. The folds of the hands are exaggerated and bordered by enormous pads. Towards the inner part of the hypothenar eminence is a large mass of flesh which can be readily separated from the 5th metacarpal bone. The nails are flattened, short, and broad, and show longitudinal striation. The soft parts, as well as the bony skeleton, take part in the enlargement of the hands. The thumb is generally a little increased in size, but not to the same extent as the hand. The arm and fore arm remain unaffected.

The feet present corresponding changes: they are flat and very large, and on the outer border a thick mass of flesh forms an enormous pad. The malleoli are more or less

enlarged, and the patella and condyles of the femur are also increased in size: the thigh and leg are natural.

The vault of the skull preserves its normal shape and size little changed. The face is very much elongated. The forehead low, with overhanging brows from dilatation of the frontal sinuses. The eyelids are long, sometimes thickened, and with hypertrophy of the tarsal cartilages. The nose is enormous, increased in all its dimensions. The cheeks flat and long, with prominent cheek-bones. The lower lip is very large, prominent and protruding: this increase in size of the lower lip contributes largely to the characteristic aspect of the patient. The chin is prominent, large and massive; the lower maxilla much increased in size; and, as the upper lip does not share in this increase, the face is prognathous often to a marked degree. The general shape of the face is an elongated oval. The teeth undergo no change, except that from the growth of the lower jaw they are here a little separated one from the other. The tongue attains very large dimensions, but keeps its normal shape. The ears are sometimes, but not always, increased in size.

As for the spine, if the affection is pronounced, there is very marked kyphosis in the upper dorsal, with compensating lordosis in the lumbar region. There may be a certain degree of scoliosis, and the vertebræ themselves are found to be hypertrophied. The neck is large, but short. From the shortness of the neck, the length of the chin, and kyphosis, the head is sunk between the shoulders and carried forwards, so that the chin may almost rest upon the sternum.

In the chest the clavicles, sternum, and ribs may be enlarged; the circumference of the thorax is great; the ribs oblique, their cartilages large. When the disease is well marked, the antero-posterior diameter of the thorax is increased, and its sides flattened. The xiphoid is enormous, projecting, with obliquity of the sternum from above downwards. In deep respiration the lower part of the thorax moves forward in a remarkable degree. Respiration is chiefly diaphragmatic.

The articulations are prominent, sometimes nodular. In an advanced stage of the disease the muscles are weak and small; but in the early stages muscular power is good, or even excessive. Electro-excitability of the muscles is said to be augmented. Symptoms are, briefly, headache, articular pains, sight feeble, or even blindness, and weakness. The skin is flabby, sometimes dry, and often presents a yellowish-brown discolouration, most marked on the eyelids.

The larynx is generally increased in size, and the voice

strong and deep. The heart is believed to be frequently enlarged.

The mental state is normal. Sexual desire and power is generally lost, and in the female the catamenia cease.

The two sexes seem to be equally liable to the disease; the duration may be twenty or thirty years, or longer; the morbid changes slowly advance, with increasing weakness and a general cachectic state. The age of onset is at present uncertain.—*Le Progrès médical*, March 16th, 1889.

J. Michell Clarke, M.B.

THERAPEUTICS.

Local Treatment of Acne.—Isaac considers the chief indication is, to limit the abundant vascularisation by the removal of the moisture and so cause shrinking. For this purpose Lassar's paste is chiefly used, consisting of—

Naphthol, 10 parts.
Sulph. Præcip., 50 parts.
Sapon. Viridis.
Vaselini āā, 20 parts.

This is spread upon the affected skin with a brush or spatula, and, according to the intensity of the process, allowed to remain on half-an-hour to one hour. On the following day scaling and retraction of the affected part, combined with slight irritation, may be seen. This is done every day until complete scaling of the skin has occurred. If severe irritation ensues, the treatment is stopped, and the part powdered, or a mild ointment, such as 2 per cent. salicyl. paste, used. For very obstinate cases the following is used:

Pulv. Cretæ Albæ, 5 parts.
β. Naphthol.
Camphor.
Vaselini flav., āā 10 parts.
Saponis Viridis, 15 parts.
Sulphur. Præcipit., 50 parts.

The addition of camphor increases the scaling action of the paste, which ought to be applied, however, for only a quarter of an hour to avoid irritation.

Another remedy of great use here is Resorcin:

Resorcin.
Zinci Oxydat.
Amyl, āā 5 parts.
Vaselini flav., 10 parts.
Ft. Pasta Mollis.

This produces a mild scaling of the skin. It was used in about 50 cases in 10—20 per cent. form without any disturb-

ance. It is best, however, to begin with weaker applications, and gradually increase it to 20 per cent., in order to avoid untoward scaling. This treatment ought to be supplemented by the use of soaps, which must be used long after all appearance of acne has disappeared.—*Berliner klinische Wochenschrift*, No. 3, 1889.

Hydracetin.—This substance is the most active constituent of the drug called Pyrodin, which was investigated last year by Dreschfeld, and found to be a powerful antipyretic. The latter was shown to be an impure compound, and there has been separated from it an active principle which is four times as strong and to which the above name has been given. It is a white, crystalline, colourless, and almost tasteless powder, with difficulty soluble in water (1 in 50), but readily so in alcohol. It has recently been investigated by Dr. Paul Guttmann, who has embodied his results in a paper read before the Berlin Medical Society. In small doses (1½ to 2¼ grs.), hydracetin reduces fever-temperatures. It was tried in 18 cases—8 being enteric fever, 3 phthisis, 2 pneumonia, 2 scarlet fever, and one each of erysipelas, acute tuberculosis, and septicæmia. In the enteric cases it was given on different days; in most of the others only once. The doses varied from ¾ gr. to 3 grs.; the gross daily dose in the majority being 2¾ grs., divided into two or three doses. Usually 1½ grs. were first given, followed in two hours by one of ¾ gr. Half an hour after the first dose the temperature begins to fall, and continues doing so for two hours, or at most three, when it reaches its lowest level. The fall is usually 2½° to 3½° F.; in exceptional cases 5°. It is usually evanescent, the thermometer soon ascending and reaching its point prior to the administration about three or four hours after. By giving ¾ gr. every hour for three hours, it can be kept down for as long a period as six hours. The decrease of temperature is accompanied by more or less profuse sweating, while the pulse and respiration fall.

In acute rheumatism, hydracetin was tried in eight cases, being administered in doses of 1½ to 3 or 4½ grs. per day. Its action in relieving pain was unmistakable; it ensued mostly after the first dose, always after the second, and usually within half to one hour of the administration of the drug. The movements in the joints became greater; after a time the pains returned, to be directly relieved again by another powder. It is thus to be looked upon as a palliative remedy in acute joint-rheumatism, similar to the salicylates, antipyrin, antifebrin, &c. Its exhibition in two cases of sciatica

was followed by immediate, though temporary, relief of the pain.

The powerful reducing action which hydracetin has chemically, suggested its use in psoriasis, where reducing agents, such as chrysarobin and pyrogallic acid, act so well. The inunction of a ten per cent. ointment removed a patch on the back after seven days, and in another instance it was used on the arm with perfect result.

Guttmann, while considering the drug worthy of a trial, does not recommend its more constant use in one case, as toxic symptoms may readily set in. Thus in three cases where 1½ grs. were given twice daily for seven days, pallor of the face came on: one of the physiological results of large doses in lower animals is, destruction of the red cells of the blood.

The following rules are given for its administration: 1. The daily dose should not be higher than 1½ grs. for adults; and, if used as an antipyretic, should be given at once, or in two doses with the interval of an hour. In acute rheumatism, 1½ grs. divided into two may be prescribed—one half given in the forenoon, the other half in the afternoon. 2. Doses of 1½ grs. daily should not be continued longer than three consecutive days. An interruption of several days should follow. —*Berliner klinische Wochenschrift*, No. 20, 1889.

D. R. Paterson, M.D.

Treatment of Syphilis by Hypodermic Injections.—Dr. Gelineau thinks that this is the most simple and effective plan of treating syphilis, and that it is free from the disadvantages that attend the administration of mercury by the mouth. He prefers a solution of the cyanide of mercury, as being always perfectly well tolerated. He gives two injections a week during the period of the appearance of the chancre and of the secondary manifestations of the disease on the skin and mouth. Fifteen days after their disappearance he begins injections of a solution of iodine in oil (1—20); these are given once a week for three months. Then 8—10 of the mercurial injections are given in a period of twenty days; the iodine injections are then continued for another period of three months, and in this way the two medicaments are given alternately during one year.—*La Médecine hypodermique*, April 1st, 1889.

J. Michell Clarke, M.B.

The Visit of the British Medical Association to Bristol.

In view of the probable visit of the British Medical Association to Bristol in 1891, the following have been appointed as a Committee to endeavour to render the Museum as perfect as possible:—

Dr. SHINGLETON SMITH, *Chairman.*

Dr. BARCLAY BARON.	Dr. AUST LAWRENCE.
Mr. DOBSON.	Dr. BARRETT ROUÉ.
Dr. E. LONG FOX.	Dr. SHAW.
Dr. HARRISON.	Dr. MARKHAM SKERRITT.
Mr. HARSANT.	Mr. GREIG SMITH.

Dr. WALDO.

Dr. J. MICHELL CLARKE,
Mr. DACRE,
Dr. PARKER,
Mr. G. MUNRO SMITH,
} *Honorary Secretaries.*

This Committee asks for help from all readers of *The Bristol Medico-Chirurgical Journal* and others; and will be glad to receive Specimens, Casts, Plates, Photographs, etc., for the Annual Museum. All contributions of this kind will be taken care of and returned at the wish of the sender. They should be addressed to Mr. G. MUNRO SMITH, Medical School, Bristol.

SCRAPS

PICKED UP BY THE ASSISTANT-EDITOR.

A Double Event. — The latest device of a newspaper for attracting readers is the engagement of two eminent physicians to attend gratuitously upon its yearly subscribers. Recently the manager of the paper gave notice to one of the physicians "not to prescribe for X. any more; his subscription has expired." The doctor replied: "So has X."

Civiale.—In *The Cincinnati Lancet-Clinic* T.C.M. thus translates an epitaph on this great lithotritist which was written by Dr. Motet in French:—

Here, where the dead are laid
In this cemetery lone,
No monument on his grave 's displayed;
For he 'd rise and crush the stone.

The Telephone in Medicine.—Great are the wonders of the telephone. A physician reports to us that he was saved a two-mile ride through a driving storm the other night by having the patient, a child, brought to the instrument and held there until it coughed. He diagnosed false croup, prescribed two grains of turpeth mineral, and turned in for an undisturbed sleep during the remainder of the night. He found the patient in the morning doing nicely—under the care of another doctor.—*The Medical Age.*

Doctors and Rich Wives.—It is quite a fashion in Europe among medical men to marry rich wives, in order to keep the wolf from the door; but in my judgment such a course only aggravates the social and professional standing as wealth acquired in such an easy way brings obligations which are antagonistic to scientific advancement. Unless a man acquires wealth by his own efforts he will seldom find his way into the front ranks of the profession. It is better for a man to remain poor as long as he lives, and labour honestly and perseveringly in the interests of his chosen profession, than to be constantly handicapped by a rich wife or her many relatives. It is seldom that a rich woman has the good sense to satisfy her ambition in promoting the scientific attainments of her husband; her interests are usually outside of the things that pertain to the profession. Only too often her greatest, yes, her only desire is to become a conspicuous figure in Society, and as she cannot attend the balls, receptions, and theatres alone, the man who married her for her money must do at least what he can to make her happy, and must go along. In this way perhaps six evenings in the week are spent, and the books and medical journals, if money is spent for such things, become covered with dust. Many of the richest doctors, who ought to occupy prominent positions among their colleagues, are not known outside the small circle of friends and acquaintances where they are tolerated only on account of their wealth. Science is making such rapid strides that its devotees have absolutely no time for the doubtful pleasures which Society can offer. The good standing and purity of our profession can only be maintained by admitting into its ranks only men with natural adaptations and an innate love and devotion for the advancement of medical science and its collateral branches.—Dr. N. SENN in *The Journal of the American Medical Association.*

Limbless Monsters.—In *The British Medical Journal* for March 9th and June 8th of this year are very interesting drawings of two monsters of this class, which were met with in the practices of Mr. Cæsar, of Wellington, Salop, and Mr. Gravely, of St. Clears. A similar monster was described by Dr. Cholmogoroff, of Moscow, in the *Centralblatt für Gynäkologie*, December 15th, 1888. These cases are sufficiently rare to make it worth while to reproduce the very clear description of a monster of this kind which was born in 1562, although the deformity was not quite so absolute as in the cases above mentioned. Stories of monsters, embellished with drawings, frequently found their way into the ballad-literature of the time, and therein an attempt was always made to point a moral.

The following entry in the *Stationers' Registers*, between July 22nd, 1561, and July 24th, 1562, doubtless refers to this case, although there seems to have been some confusion about the county. The sum paid for the license in this instance is not stated:—

> T marshe Recevyd of Thomas marshe for his lycense for pryntinge of a pycture of a monsterus chylde which was bourne in Suffolk. —Arber's *Transcript*, I. 181.

The ballad itself, which was printed by Marsh, was entitled—

> "*The true reporte of the forme and ſhape of a monſtrous Childe borne at Muche Horkeſleye, a village three myles from Colcheſter, in the Countye of Eſſex, the* xxi *daye of Apryll in this yeare* 1562."

And after the verses is given this description of the child:—

> "On Tuyſday being the xxi day of Apryll, in this yeare of our Lorde God a thouſand fyue hundred thre ſcore and two, there was borne a man-childe of this maymed forme at Muche Horkeſley in Eſſex, a village about thre myles from Colcheſter, betwene a naturall father and a naturall mother, hauing neyther hande, foote, legge, nor arme, but on the left ſyde it hath a ſtumpe growynge out of the ſhoulder, and the ende thereof is rounde, and not ſo long as it ſhould go to the elbowe; and on the ryghte ſyde no mencion of any thing where any arme ſhould be, but a litel ſtumpe of one ynche in length; alſo on the left buttocke there is a ſtumpe comming out of the length of the thygh almoſt to the knee, and round at the ende, and groweth ſomething ouerthwart towardes the place where the ryght legge ſhould be, and where the ryghte legge ſhould be, there is no mencion of anye legge or ſtumpe. Alſo it hath a codde and ſtones, but no yearde, but a lytell hole for the water to iſſue out. Finallye, it hath by eſtimation no tounge, by reaſon whereof it ſucketh not, but is ſuccoured wyth liquide ſubſtaunce put into the mouth by droppes, and nowe begynneth to feede wyth pappe, beyng very well fauoured, and of good and chearefull face.
>
> "¶ The aforeſayde Anthony Smyth of Muche Horkeſley, huſbandman, and his wyfe, were both maryed to others before, and haue had dyuers chyldren, but this deformed childe is the fyrſt that the ſayd Anthony and his wyfe had betwene them two; it is a man chylde. This chylde was begot out of matrimony, but borne in matrimonye; and at the makynge hereof was liuing, and like to continue."

The foregoing and the ballad, with accounts of several other monsters, may be seen in *Ancient Ballads and Broadsides* reprinted in 1867 from Mr. Henry Huth's collection. The woodcuts of this and similar children have been copied by hand in the Register-book of Wills in the Prerogative Court of Canterbury for the year 1562.

Holinshed (*Chronicle*, ed. 1587, Vol. III., p. 1195), referring to 1562, a time of political unrest, when these occurrences were supposed to have a special significance, says: "This yeare in England were manie monstruous births," and mentions some instances. There are several entries in the *Stationers' Registers* concerning them.